11-6730-210-35

TM 11-6730-210-35

EPARTMENT OF THE ARMY TECHNICAL MANUAL

FIELD AND DEPOT MAINTENANCE MANUAL

PROJECTION SET, MOTION PICTURE, SOUND AS-7A

This copy is a reprint which includes current pages from Change 3.

HEADQUARTERS, DEPARTMENT OF THE ARMY
27 NOVEMBER 1963

D 101. 11:

READEX FICHE best copy available

WARNING

HIGH VOLTAGE

is used in this equipment.

DEATH ON CONTACT

may result if
safety precautions
are not observed.

DON'T TAKE CHANCES!

Be careful not to come in contact with high-voltage or power connections on this equipment. Turn off the power and discharge all high-voltage capacitors before making any connections or doing any work inside the equipment. Be extremely careful when working on the amplifiers. Amplifier, Audio Frequency BQ-5A has voltages as high as 550 volts. The amplifier of Projector, Motion Picture, Sound AQ-4A(1) has voltages as high as 550 volts.

TM 11–6730–210–35
*C 3

CHANGES } No. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *13 January 1972*

Direct Support, General Support, and Depot Maintenance Manual Including Repair Parts and Special Tools Lists

PROJECTION SET, MOTION PICTURE, SOUND AS–7A

TM 11–6730–210–35, 27 November 1963, is changed as follows:

1. The title is changed as shown above.
2. New or changed material not obvious to the user is indicated by a vertical bar in the margin.
3. Remove and insert pages as indicated below.

Remove pages—	*Insert pages—*
1 through 8	1 through 8
11 through 14	11 through 14
17 and 18	17 and 18
23 through 30	23 through 30
37 through 82	37 through 82.9
89 through 110	89 through 110.5
113 through 164	113 through 164.114
173 through 190	173 through 189

4. File this change sheet in the front of the manual for reference purposes.

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*This change supersedes C 1, 31 August 1965, C 2, 7 February 1966, and TM 11–6730–210–35P, 22 May 1964.

By Order of the Secretary of the Army:

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff.

Official:
VERNE L. BOWERS,
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USASA (2)
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USAARENBD (2)
USAMB (10)
USACDC (2)
USACDC Agcy (1)
USAMC (1)
CONARC (5)
ARADCOM (2)
ARADCOM Rgn (2)
OS Maj Comd (4)
LOGCOMDS (5)
USAMICOM (4)
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USASTRATCOM (4)
USAESC (70)
MDW (1)
Armies (2)
Corps (2)
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USAARMS (2)
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WRAMC (1)
USACDCEC (10)
Instl (2) except
  Ft Gordon (10)
  Ft Huachuca (10)
  WSMR (3)
  Ft Carson (19)
  Ft Richardson (ECOM Ofc) (2)
Army Depot (2) except
  LBAD (14)
  SAAD (30)
  TOAD (14)
  LEAD (7)
  NAAD (5)
  SVAD (5)
  ATAD (10)
Gen Dep (2)
Sig Sec Gen Dep (5)
Sig Dep (10)
SigFLDMS (2)
ATS (1)
USAERDAA (2)
USAERDAW (5)
USACRREL (2)
MAAG (1)
USARMIS (1)
USAPA (5)
Av Comm Cen (1)
Units org under fol TOE:
    (2 cys each)
  11-95
  11-96
  11-117
  11-158
  11-500 (AA-AC, FB, FG, FH)
  29-134
  29-136

NG: None.

USAR: None.

For explanation of abbreviations used, see AR 310-50.

Technical Manual }
No. 11-6730-210-35 }

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, D.C., *27 November 1963*

Direct Support, General Support, and Depot Maintenance Manual
Including Repair Parts and Special Tools Lists
PROJECTION SET, MOTION PICTURE, SOUND AS-7A

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CHAPTER 1

MECHANICAL AND OPTICAL FUNCTIONING

NOTE

Projection Set, Motion Picture, Sound AS-7A may contain Projector, Motion Picture, Sound AQ-4A(1), AQ-4A(2) or AQ-4A(3). Information in this manual applies to all three projectors unless otherwise specified.

Section I. GENERAL

1. Scope

a. This manual covers field and depot maintenance for Projection Set, Motion Picture, Sound AS-7A. It includes instructions appropriate to direct support (DS), general support (GS), and depot maintenance for troubleshooting, testing, aligning, and repairing the equipment, replacing maintenance parts, and repairing specified maintenance parts. It also lists tools, materials, and test equipment for DS, GS, and depot maintenance. Paragraphs covering detailed functions of the equipment (paras 3 through 19) give the purpose, operation, and interoperation of the various circuits (electrical, electronic, mechanical, electromechanical, and optical) in this equipment. Familiarity with the equipment, how it works, and why it works that way are valuable tools in troubleshooting the equipment rapidly and effectively.

b. The complete technical manual for this equipment includes TM 11-6730-210-10, TM 11-6730-210-20, and TM 11-5965-229-15P.

c. The direct reporting by the individual user of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to Publications) will be used and forwarded direct to Commanding General, US Army Electronics Command, ATTN: AMSEL-MA-SNV, Fort Monmouth, N.J. 07703.

2. Indexes of Publications

a. DA Pam 310-4. Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. DA Pam 310-7. Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO'S) pertaining to the equipment.

Section II. MECHANICAL FUNCTIONING

NOTE

Refer to illustrations for complete reference designations of parts.

3. Projector Main Drive Power
(fig. 1)

a. Main drive power, which is furnished by drive motor B101 (or THREADING KNOB MP1 through drive motor B101), drives all the mechanical components of the projector except the cooling components.

b. Mechanical power from drive motor B101 is applied through drive motor sprocket B101MP1 to drive chain A1. Drive chain A1

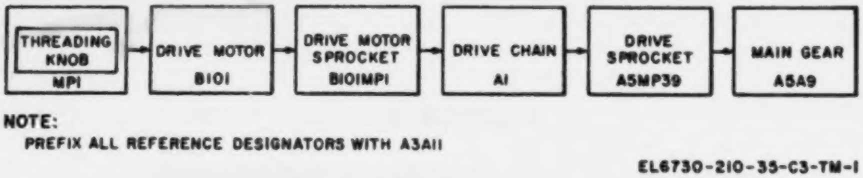


Figure 1. Mechanical power transmission, block diagram.

applies the mechanical power through drive sprocket A5MP39 to main gear A5A9. Main gear A5A9 supplies mechanical power for intermittent film advance (para 4), continuous film advance (para 5), and the HOURS counter, takeup, and rewind mechanisms (para 6).

4. Intermittent Film Advance
(fig. 2)

Intermittent film advance is accomplished by the intermittent mechanism and the shutter which operate together to accomplish rapid advance and projection of film frames.

a. Mechanical power is applied through main gear A9 to helical gear A13 and rear cam gear A11. Helical gear A13 drives shutter A35. Rear cam gear A11 applies power through rear camshaft A31 to drive rear cam A36MP2. Rear cam gear A11 also applies power through front cam gear A12 and front camshaft A30 to drive front cam A36MP3.

b. Rear cam A36MP2 provides horizontal motion to cause shuttle A36A1 to engage and disengage the film. Front cam A36MP3 provides vertical motion to shuttle A36A1 to advance the film one frame at a time.

c. Intermittent advance of the film is provided by the combined action of rear cam A36MP2 and front cam A36MP3. In one complete cycle, shuttle A36A1 moves forward to engage the film, moves down to advance the film one frame, moves back to release the film, moves up and down twice without engaging the film, then moves up preparatory to again engaging the film for the next cycle. The complete cycle occurs 24 times a second to produce a projection rate of 24 frames per second (fps).

d. Shutter A35 is located between the projection lamp and the film and is synchronized with the action of shuttle A36A1. Shutter A35 interrupts the light while the film is advancing

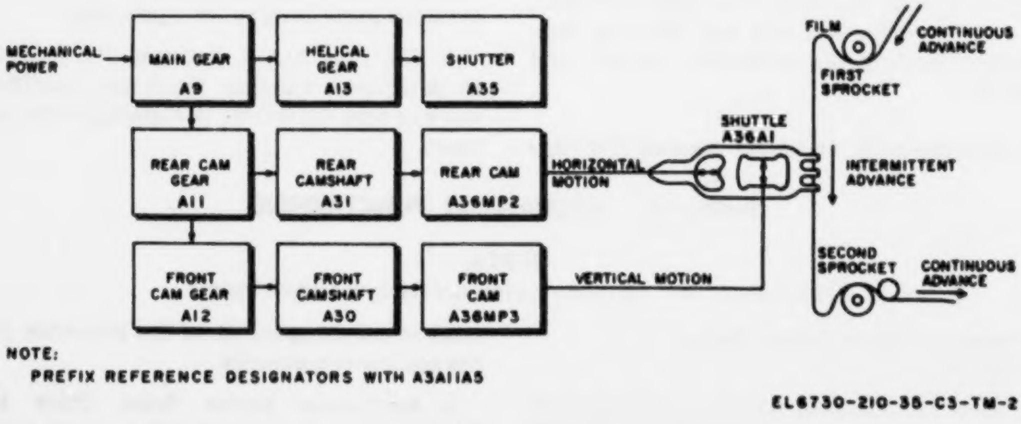


Figure 2. Intermittent film advance mechanism and shutter, block diagram.

(*c* above) to prevent the projection of moving images. Shutter A35 also interrupts the light once while each frame is being projected to balance the periods of light and dark on the screen and eliminate flicker.

5. Continuous Film Advance
(fig. 3)

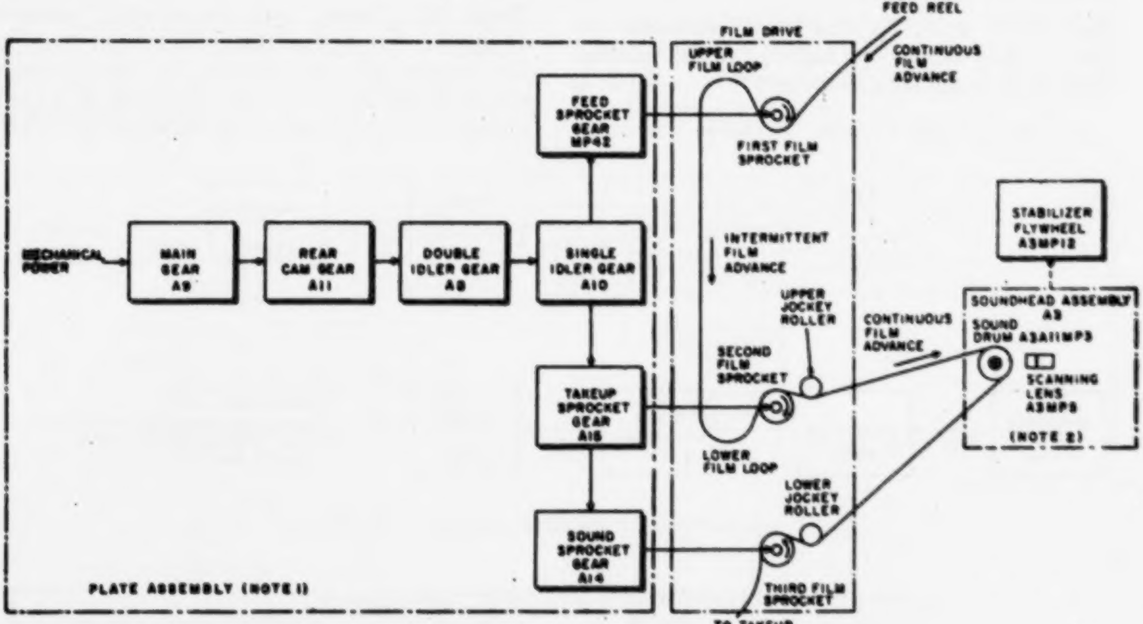
Continuous film advance is accomplished on either side of the intermittent film advance by the film sprockets (*a* below). Sound drum A3A11MP3 and stabilizer flywheel A3MP12 (*b* below) furnish the film advance steadiness required for good sound reproduction.

a. Mechanical power is applied through main gear A9, rear cam gear A11, and double idler gear A8 to single idler gear A10. Single idler gear A10 applies power to feed sprocket gear MP42 ((1) below) and to takeup sprocket gear A15 ((2) below). The takeup sprocket applies power to sound sprocket gear A14 ((3) below).

(1) Feed sprocket gear MP42 drives the first film sprocket which pulls film from the feed reel and replenishes the upper film loop. The upper film loop and the lower film loop provide the film slack necessary for simultaneous intermittent and continuous film advance.

(2) Takeup sprocket gear A15 drives the second film sprocket which takes film from the lower film loop and advances it around sound drum A3A11MP3 to the third film sprocket ((3) below). The second film sprocket mechanically filters out the intermittent motion from the film going around sound drum A3A11-MP3.

(3) Sound sprocket gear A14 drives the



NOTE:
1. PREFIX REFERENCE DESIGNATORS IN THIS BLOCK WITH A3A11A8
2. PREFIX REFERENCE DESIGNATORS IN THIS BLOCK WITH A3A11

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Figure 3. Continuous film advance mechanism, block diagram.

third film sprocket which takes film from the second film sprocket and furnishes it to the takeup reel at a controlled rate. The third film sprocket prevents the takeup reel from interfering with the continuous film advance around sound drum A3A11MP3 and past scanning lens A3MP5. The second film sprocket and the third film sprocket supply the mechanical power to drive sound drum A3A11MP3.

b. Sound drum A3A11MP3 is driven by the advancing film between the second film sprocket and the third film sprocket. Sound drum A3-A11MP3 drives stabilizer flywheel A3MP12 which is at the rear of soundhead assembly A3. Stabilizer flywheel A3MP12 steadies the rotation of sound drum A3A11MP3 to move the film sound track past scanning lens A3MP5 at a uniform rate.

6. HOURS Counter, Takeup, and Rewind Mechanisms

(fig. 4)

Mechanical power for the HOURS counter (*a* below), film takeup (*b* below), a film rewind (*c* below), is applied as follows:

a. The HOURS counter indicates the number of hours the projector has been operated. Mechanical power from feed sprocket gear MP42 (para 5) is applied through drive gear MP38 to counter drive mechanism A7 and to upper drive chain MP8 (*b* below). Counter drive mechanism A7 provides the gear reduction to advance HOURS counter MP11 one digit for each hour of operation.

b. Upper drive chain MP8 applies power to takeup sprocket MP38 and to rewind sprocket MP39 (*c* below). Takeup sprocket MP38 applies power to takeup pulley assembly A28. Takeup pulley assembly A28 applies power to takeup belt A3MP2 for film takeup.

c. Rewind sprocket MP39 applies power to rewind pulley assembly A29. Rewind pulley assembly A29 applies power to rewind belt A3MP1 for film rewind.

7. Film Framing Mechanism

(fig. 5)

Each film frame must be exactly centered (framed) for projection; otherwise, part of the frame will be masked by the aperture and will not be projected. Framing is accomplished during operation by rotation of FARM-

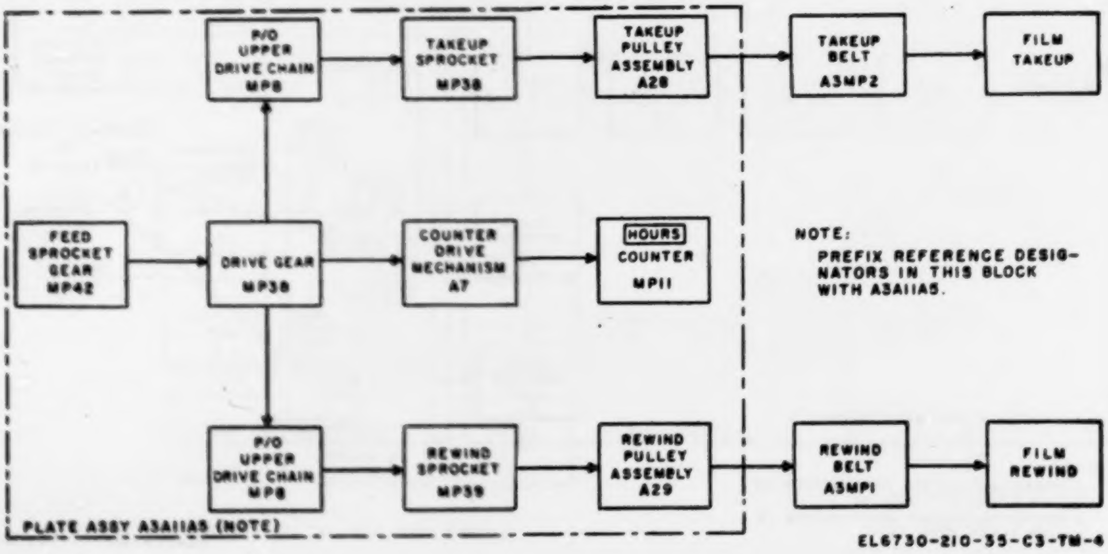
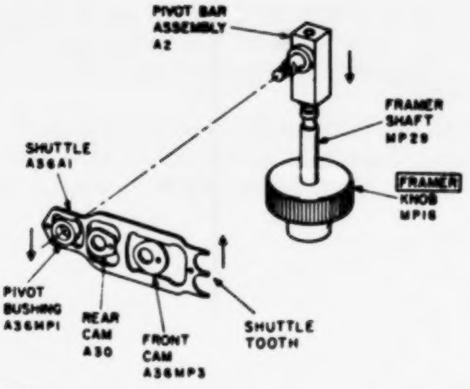

P/O UPPER DRIVE CHAIN MP8
TAKEUP SPROCKET MP38
TAKEUP PULLEY ASSEMBLY A28
TAKEUP BELT A3MP2
FILM TAKEUP
FEED SPROCKET GEAR MP42
DRIVE GEAR MP38
COUNTER DRIVE MECHANISM A7
HOURS COUNTER MP11
NOTE:
PREFIX REFERENCE DESIGNATORS IN THIS BLOCK WITH A3A11A5.
P/O UPPER DRIVE CHAIN MP8
REWIND SPROCKET MP39
REWIND PULLEY ASSEMBLY A29
REWIND BELT A3MP1
FILM REWIND
PLATE ASSY A3A11A5 (NOTE)
EL6730-210-35-C3-TM-4

Figure 4. Projector HOURS counter, takeup, and rewind mechanisms, block diagram.



NOTE:
PREFIX REFERENCE DESIGNATORS WITH A3A11A5

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Figure 5. Film framing mechanism.

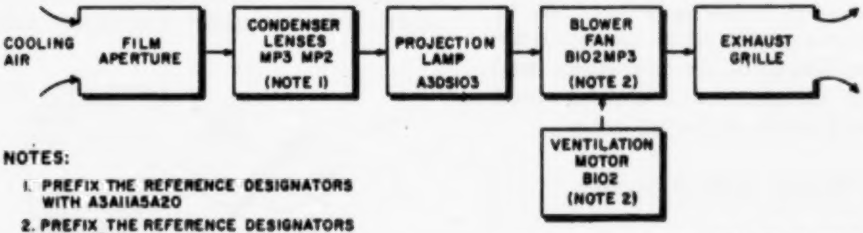
ER knob MP16 while the projected image is watched on the screen.

a. When FRAMER knob MP16 is rotated to the right or left, the threaded end of framer shaft MP29 causes pivot bar assembly A2 to be lowered or raised.

b. When pivot bar assembly A2 is lowered or raised, pivot bushing A36MP1 causes the rear of shuttle A36A1 to be lowered or raised. Rear cam A30 has sufficient top and bottom clearance to permit the vertical repositioning of shuttle A36A1. Front cam A36MP3 does not have top and bottom clearance and acts as the pivot point for shuttle A36A1. When pivot bushing A36MP1 is lowered, the shuttle teeth are raised to position the film frames higher; when pivot bushing A36MP1 is raised, the shuttle teeth are lowered to position the film frames lower.

8. Projector Ventilation
(fig. 6)

Projection lamp A3DS103 develops considerable heat. Efficient heat removal is required to prevent damage to the film and the equipment. Cooling air is drawn in through vents near the film aperture, past condenser lenses MP3 and MP2 and projection lamp A3DS103 by blower fan B102MP3. The air is then discharged through the exhaust grille at the rear of the projector. Blower fan B102MP3 is driven by ventilation motor B102.


COOLING AIR
FILM APERTURE
CONDENSER LENSES MP3 MP2 (NOTE 1)
PROJECTION LAMP A3DS103
BLOWER FAN B102MP3 (NOTE 2)
EXHAUST GRILLE
VENTILATION MOTOR B102 (NOTE 2)

NOTES:
1. PREFIX THE REFERENCE DESIGNATORS WITH A3A11A5A20
2. PREFIX THE REFERENCE DESIGNATORS WITH A3A11

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Figure 6. Projector ventilation, block diagram.

Section III. OPTICAL FUNCTIONING

9. Projection Optical System
(fig. 7)

The projection optical system provides the light beam for projecting the film image onto the screen. Projection lamp A3DS103, is a high-wattage, concentrated filament projection lamp (750 to 1,000 watts). Correct orientation of projection lamp A3DS103 is assured by a prefocused base. Lenses MP3 and MP2 concentrate (condense) the light from the filament of lamp A3DS103 on the film frame. Reflector A6MP7 is placed behind the lamp to

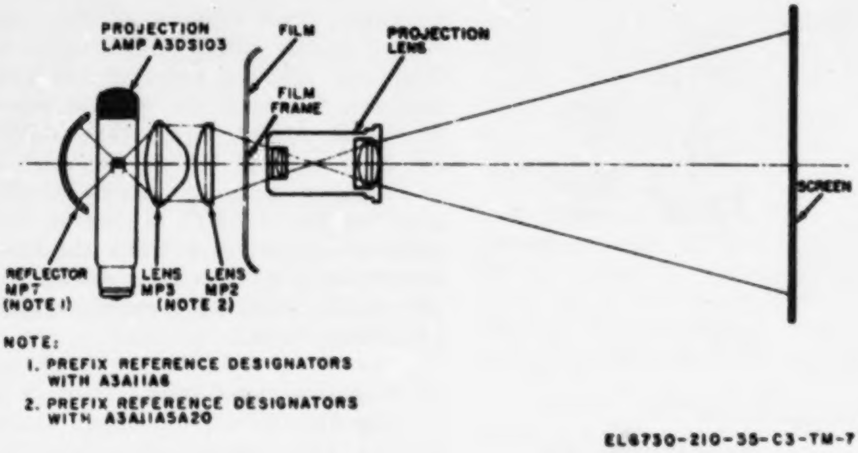


Figure 7. Projection optical system, schematic diagram.

recover the light that radiates to the rear of the lamp (which otherwise would be lost) and to redirect it forward to the film frame. An aperture plate (not shown) masks the beam of light from all areas except the film frame being projected. The projection lens is placed in front of the film to focus (project) the image in the film frame on the screen. The size of the projected image is determined by the distance of the screen from the projector and by the focal length of the projection lens; a longer screen distance or a shorter focal length lens gives a larger projected image.

10. Projector Sound Optical System
(fig. 8)

Optical components of the projector scan the density variations in the film optical sound track and, with photoelectric cell V52, produce an electrical input signal for the amplifier. The speaker at the output of the amplifier reproduces the signal as audible sound waves.

a. Optical Components. The light from exciter lamp DS52 is focused into a tiny beam by scanner lens MP5 and directed onto a portion of the optical sound track that is passing around sound drum A11MP3. The beam of light is modulated by the varying density of the optical sound track and then is conducted by light pipe prism to A11MP8 to photoelectric cell V52. The output of photoelectric cell V52 is an audio signal.

b. Reproduction of Volume, Pitch, and Tone. The modulated beam of light (*a* above) transmitted to photoelectric cell V52 contains intensity variations as well as variations in the frequency at which the intensity variations occur. The intensity variations control the

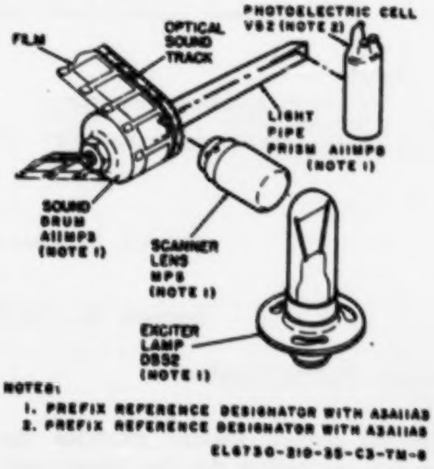

FILM
OPTICAL SOUND TRACK
PHOTOELECTRIC CELL V52 (NOTE 2)
LIGHT PIPE PRISM A11MP8 (NOTE 1)
SOUND DRUM A11MP3 (NOTE 1)
SCANNER LENS MP5 (NOTE 1)
EXCITER LAMP DS52 (NOTE 1)
NOTES:
1. PREFIX REFERENCE DESIGNATOR WITH A3A11A8
2. PREFIX REFERENCE DESIGNATOR WITH A3A11A8
EL6730-210-35-C3-TM-8

Figure 8. Projector sound system, schematic diagram.

volume of electrical input signals; the frequency of the intensity variations produces the pitch and tone, and creates sound (music or speech) through the amplifier and speaker.

c. Sound Synchronization. The sound associated with an individual picture or frame is not recorded on the sound track directly opposite that frame, but at a point 26 frames ahead. In projection, this displacement of the sound track relative to the picture is required for proper synchronization of the sound and picture. To attain synchronization, the sound track must pass the scanning beam (*a* above) when the related picture is at the aperture (para 9).

CHAPTER 2

ELECTRICAL FUNCTIONING

NOTE

Refer to illustrations for complete reference designations of parts.

Section I. BLOCK DIAGRAM ANALYSIS

11. General

Projection Set, Motion Picture, Sound AS-7A projects motion pictures having optical or magnetic sound tracks and records sound on films having magnetic sound tracks (sound stripes). A discussion of the projector optical portion of the sound system is given in paragraph 10. A block diagram discussion of the AS-7A interconnected for operation is given in paragraphs 12 through 16. A detailed circuit analysis of the AS-7A is given in paragraphs 17, 18, and 19.

12. Input Signal

(fig. 93)

a. Optical Signal Input. Radiofrequency (RF) power from RF oscillator V205 and transformer T203 in the projector amplifier is applied through OFF-MOTOR-LAMP switch S103B and OPTICAL MAGNETIC RECORD switch S51A to light exciter lamp DS52. The unmodulated light from exciter lamp DS52 is modulated by the film optical sound track (para 10) and is impressed on photoelectric cell V52. Photoelectric cell V52 changes the modulated light to an audio signal. For sound amplification and output, the audio signal from photoelectric cell V52 is applied to input level control R203. From input level control R203, the audio signal is applied to audio amplifier V201A (para 13). For re-recording, the audio signal is applied as CHANNEL 3 input audio to the mixer-amplifier (para 14*a* (3)).

b. Magnetic Signal Input. The audio signal and RF power from relay K301 in the mixer-amplifier is applied through the contacts of relay K101 to OPTICAL MAGNETIC RECORD switch S51C. Wehn switch S51C is in the MAGNETIC position, record-reproduce head PU51 is in contact with the film magnetic sound track and develops an audio signal from the variations in the magnetic pattern of the sound track. The audio signal is applied through OPTICAL MAGNETIC RECORD switch S51C and audio transformer T51 to audio preamplifier V51A. Audio preamplifier V51A amplifies the audio signal and applies it to audio preamplifier V51B. Feedback network R54, R58, and C52 improves the frequency response and minimizes distortion. Audio preamplifier V51B amplifies the audio signal and applies it to isolation resistor R237. From isolation resistor R237, the audio signal is applied to audio amplifier V201A (para 13).

c. Microphone Signal Input (fig. 94). The audio signal from the microphone is applied through MICROPHONE jack J202 directly to audio amplifier V201A (para 13).

13. Signal Amplification Output

(fig. 94)

Audio amplifier V201A amplifies the audio signal from input level control R203 (para 12*a*), isolation resistor R237 (para 12*b*), or MICROPHONE jack J202 (para 12*c*) and applies it to audio amplifier V201B. Tone control is provided by a feedback network from V201B through TONE control S201A to V201A. The amplified audio signal from audio amplifier V201B is applied through TONE control S201B and the coupling netowrk to VOLUME control R213. VOLUME control R213 adjusts the strength of the audio signal and applies it to audio frequency (af) driver V202A. Af driver V202A is a voltage amplifier. The amplifier audio signal from V202A is applied to phase inverter V202B. Phase inverter V202B is a paraphase amplifier and produces two audio signals, equal in amplitude but opposite in phase, which are applied to power amplifiers V203 and V204. The amplified audio signal outputs from power amplifiers V203 and V204 are applied across output transformer T201. The output from T201 is applied through speaker selector switch S203 to drive local speaker LS201 or remote speaker LS401, depending on the setting of S203.

14. Magnetic Sound Recording and Re-Recording
(fig. 95)

a. Inputs.

(1) CHANNEL 1 input audio signal is used for low impedance, low level inputs, such as the input from the microphone. The input audio signal is applied to audio input transformer T301. The output from audio input transformer T301 is applied to audio preamplifier V301. The amplified audio signal from audio preamplifier V301 is applied to CHANNEL 1 gain control R301. CHANNEL 1 gain control R301 varies the strength of the audio signal and applies it to MASTER gain control R302 for mixing and amplification (*b* below).

(2) CHANNEL 2 input audio is signal used for inputs similar to CHANNEL 1 input audio signal ((1) above), and has the additional feature of a high-pass filter which may be switched into or out of the input circuit. The input audio signal is applied to audio input transformer T302. The output from audio input transformer T302 is applied to audio preamplifier V302. The amplified audio signal from audio preamplifier V302 is applied to DIALOGUE switch S305. In the IN position, DIALOGUE switch S305 cuts out low-frequency tones to increase voice intelligibility. In the OUT position, DIALOGUE switch S305 permits normal frequency range recording. The audio signal from DIALOGUE switch S305 is applied to CHANNEL 2 gain control R303. CHANNEL 2 gain control R303 varies the strength of the audio signal and applies it to MASTER gain control R302 for mixing and amplification (*b* below).

(3) CHANNEL 3 input audio is used for high impedance, high level inputs, such as the optical sound output of the projector during re-recording. The input audio signal is applied to CHANNEL 3 gain control R304 and to NARRATOR LEVEL adjustment R305. CHANNEL 3 gain control R304 varies the strength of the audio signal and applies it to MASTER gain control R302 for mixing and amplification (*b* below). NARRATOR LEVEL adjustment R305 varies the strength of the audio signal and applies it to NARRATOR jack J306 for monitoring optical sound by use of the headset.

b. Mixing, Amplification, and Rf Power.

(1) MASTER gain control R302 mixes the audio signal inputs from CHANNEL 1 gain control R301 (*a*(1) above), CHANNEL 2 gain control R303 (*a*(2) above), and CHANNEL 3 gain control R304 (*a*(3) above). MASTER gain control R302 varies the strength of the combined audio signal and applies it to audio amplifier V303A. The amplified audio signal from audio amplifier V303A is applied to audio amplifier V304 and to monitor amplifier V303B.

(2) The amplified audio signal from audio amplifier V304 is applied to feedback network C310, R335, and R353, and to audio output transformer T303 ((4) below). Feedback network C310, R335, and R353 provides negative feedback to audio amplifier V304 for frequency compensation. The amplified audio signal from monitor amplifier V303B is applied to AUDIO ADJ control R307 and to MIXER jack J307 for monitoring all channels simultaneously, using the headset.

(3) AUDIO ADJ control R307 varies the strength of the audio signal and applies it to BIAS switch S303. When pressed, BIAS switch S303

applies the bias to record-reproduce head PU51 through AUDIO switch S302 to volume-unit meter M301.

(4) The output audio signal from audio output transformer T303 ((2) above) is applied to the contacts of relay K301 and to AUDIO switch S302. The contacts of relay K301 apply the audio signal through the contacts of relay K101 to OPTICAL MAGNETIC RECORD switch S51C in the projector (*c*(1) below). When pressed, AUDIO switch S302 applies the audio signal to volume-unit meter M301.

(5) BIAS ADJ control R306 adjusts the output power of rf oscillator V306. Rf oscillator V306 applies rf power to relay K101 in the projector (*c*(1) below).

c. Recording (fig. 93).

(1) Rf power from rf oscillator V306 (*b*(5) above) is applied through the contacts of relay K101 to OPTICAL MAGNETIC RECORD switch S51D. When OPTICAL MAGNETIC RECORD switch S51D is in the RECORD position, it applies the rf power to erase head PU52 and to record indicator DS51. Energized by the rf power, erase head PU52 removes any previously recorded signals from the sound track. The rf power lights record indicator DS51 to indicate that recording is being accomplished.

(2) Audio signal and rf power from relay K301 is applied through the contacts of relay K101 to OPTICAL MAGNETIC RECORD switch S51C. When OPTICAL MAGNETIC RECORD switch S51C is in the RECORD position, it applies the audio signal and rf power to record-reproduce head PU51. Record-reproduce head PU51 is in contact with the film magnetic sound track and records the audio signal variations as magnetic patterns in the film magnetic sound track.

d. Re-recording. Re-recording is accomplished on an optical sound track to which has been added a one-quarter or a one-half magnetic sound stripe (TM 11-6730-210-20). An audio signal produced by the optical sound track (para 12*a*) is applied to CHANNEL 3 input audio (para 14*a*(3)), and is re-recorded on the magnetic sound stripe. The audio signal from the optical sound track may be recorded individually, or mixed with other signals applied to CHANNEL 1 input audio (para 14*a*(1)) or CHANNEL 2 input audio (para 14*a*(2)).

15. Power Circuits, Projector

The power circuits required to operate the projector are as follows:

a. Projector (fig. 93). The 118 volts alternating current (ac) from the power source is applied through fuses F101 and F102 to filter FL101. Filter FL101 applies the 118 volts ac to OFF-MOTOR-LAMP switch S103D ((1) below), to OFF-MOTOR-LAMP switch S103C ((2) below), to THREADING LAMP switch S102 ((3) below), and to ON-OFF switch S202 in the projector amplifier (*b* below).

(1) When OFF-MOTOR-LAMP switch S103D is in the LAMP position, it applies power to light projection lamp DS103.

(2) When OFF-MOTOR-LAMP switch S103C is in the MOTOR or the LAMP position, power is applied to ventilation motor B102 and to REWIND switch S105. REWIND switch S105 applies power to governor switch S106 and to resistor R105. Resistor R105 applies power steadily to drive motor B101. Governor switch S106 applies additional power to increase the speed when drive motor B101 is running slower than the required speed. When REWIND switch S105 is in the OFF position, it applies power to operate drive motor B101 in the forward (project) direction. When REWIND switch S105 is in the ON position, it applies power to operate drive motor B101 in the reverse (rewind) direction.

(3) When THREADING LAMP switch

S102 is in the ON position, it applies power to light threading lamp DS101 and panel lamp DS102.

b. Projector-Amplifier (fig. 94). The 118 volts ac from filter FL101 is applied to ON-OFF switch S202. When ON-OFF switch S202 is in the ON position, it applies 118 volts ac through fuse F201 to power transformer T202. The output of power transformer T202 is applied as follows:

(1) The 6.3-volt secondary winding of power transformer T202 applies power to voltage-dropping resistors R238 and R239. Voltage dropping resistors R238 and R239 reduce the 6.3 volts ac to 5 volts ac and apply it to the filaments of audio preamplifier V51.

(2) The 6.3-volt secondary winding of power transformer T202 also applies power to amplifier indicator DS201 and to the filaments of V201 through V207.

(3) The 530-volt secondary winding of power transformer T202 applies plate voltage to full-wave rectifiers V206 and V207. Full-wave rectifiers V206 and V207 apply the rectified voltage to the B-supply filter network.

(4) The B-supply filter network filters the voltage and applies it to a voltage-dividing network. The voltage-dividing network applies 25 volts direct current (dc) to photoelectric cell V52. (See Note 1, fig 94).

(5) The B-supply filter network applies 228-volt dc plate voltage to OPTICAL MAGNETIC RECORD switch S51B (fig. 93). When OPTICAL MAGNETIC RECORD switch S51B is in the OPTICAL or the MAGNETIC position, the 228-volt dc plate voltage is applied to audio preamplifiers V51A and V51B.

(6) The B-supply filter network applies 305-volt dc plate voltage to V201, V202, V203, and V204; and supplies 310-volt dc plate voltage to V203 and V204.

(7) The B-supply filter network applies plate voltage to rf oscillator V205 and transformer T203. Rf oscillator V205 and transformer T203 apply rf power to OFF-MOTOR-LAMP switch S103B.

16. Power Circuits, Mixer-Amplifier
(fig. 95)

The 118 volts ac from the power source is applied through fuse F301 to ON-OFF switch S301. When ON-OFF switch S301 is in the ON position, it applies the 118 volts ac to power transformer T304. The output of power transformer T304 is applied as follows:

a. The 6.3-volt secondary winding of power transformer T304 applies filament power to V301 through V306, applies power through the contacts of relay K301 to record indicator DS301, and applies power to volume-unit meter lamps DS302 and DS303.

b. The 550-volt secondary winding of power transformer T304 applies plate voltage to rectifier V305.

c. Rectifier V305 applies 375 volts dc through the contacts of relay K301 to rf oscillator V306.

d. Rectifier V305 applies 280 volts dc through filter C301, R349, R346, and C302(7B) to V304 and to filter C302(3B) (5B) and R345. Filter C302(3B) (5B) and R345 applies 240 volts dc to V301, V302, and V303.

e. Rectifier V305 applies 338 volts dc to RECORD-STOP switch S304. When RECORD-STOP switch S304 is momentarily placed in the RECORD position, the 338 volts dc is applied to delay network R347 and C327. After a fixed delay, delay network R347 and C327 applies 338 volts dc to REWIND switch S105.

Section II. CIRCUIT ANALYSIS

17. Projector
(fig. 96)

The projector includes motor circuits (*a* below), lamp circuits (*b* below), audio reproduction and preamplifier circuits (*c* below), audio recording circuits (*d* below), and the projector-amplifier circuits (para 18).

a. Motor Circuits.

(1) *Ventilation motor B102.* Ventilation motor B102 operates when OFF-MOTOR-LAMP switch S103 is in the MOTOR or the LAMP position. The 118 volts ac from pins 1 and 3 of J103 is applied through fuses F101 and F102 to pins 1 and 2 of filter FL101. Pin 4 of FL101 applies power through contacts 5 and 6 of OFF-MOTOR-LAMP switch S103C (MOTOR or LAMP position), through one field winding, through the armature, and through the other field winding of ventilation motor B102, to return to pin 3 of FL101.

(2) *Drive motor B101.* Drive motor B101 operates in the forward direction when REWIND switch S105 is in the OFF position and OFF-MOTOR-LAMP switch S103 is in the MOTOR or the LAMP position. Drive motor B101 operates in the reverse direction when REWIND switch S105 is in the ON position, regardless of the position of OFF-MOTOR-LAMP switch S103. The direction of rotation of drive motor B101 is controlled as follows:

(a) *Forward direction.* For operation in the forward direction, 118 volts ac from OFF-MOTOR-LAMP switch S103C ((1) above) is applied through pin 1 of P106, terminals 3 and 4 of one field winding of B101, pin 2 of P106, contacts 1 and 5 of REWIND switch S105 (OFF position), pin 6 of P106, terminals 5 and 6, brushes, and armature of B101, pin 4 of P106, contacts 2 and 6 of S105, through the parallel combination of motor resistor R105 and governor switch S106, through terminals 1 and 2 of the other field winding of B101, and through pin 7 of P106 to return to terminal 3 of FL101.

(b) *Reverse direction.* In the reverse direction, the 118 volts ac applied to the field windings of B101 is in the same direction as in (a) above, but the 118 volts ac applied to the armature is reversed in polarity. The 118-volts ac from pin 4 of FL101 is applied through contacts 7 and 11 of REWIND switch S105 (ON position), through pin 1 of P106, terminals 3 and 4 of one field winding of B101, pin 2 of P106, contacts 10 and 6 of S105, pin 4 of P106, terminals 5 and 6, brushes and armature of B101, pin 6 of P106, contacts 5 and 9 of S105, pin 8 of P106, through the parallel combination of motor resistor R105 and governor switch S106, through terminals 1 and 2 of the second field winding of B101, and through pin 7 of P106 to return to terminal 3 of FL101.

b. Lamp Circuits. The projector includes lamp circuits for projection lamp DS103 ((1) below), exciter lamp DS52 ((2) below), threading lamps DS101 and DS102 ((3) below), and record indicator lamp DS51 ((4) below).

(1) *Projection lamp DS103.* The 118 volts ac from pins 1 and 3 of J103 is applied through fuses F101 and F102 to pins 1 and 2 of filter FL101. Pin 4 of FL101 applies 118 volts ac through contacts 5 and 6 of OFF-MOTOR-LAMP switch S103C (LAMP position) to light projection lamp DS103. Contacts 1 and 3 of S103D provide the return path to pin 3 of FL101.

(2) *Exciter lamp DS52.* Rf power from the projector-amplifier is applied through P54, contacts 13 and 14 of OFF-MOTOR-LAMP switch S103B (LAMP position) through contacts 3 and 14 of OPTICAL MAGNETIC RECORD switch S51A (OPTICAL position), or contacts 1 and 14 of S51B (RECORD position) to light exciter lamp DS52. The cable shield ground provides the return path for the rf power.

(3) *Threading lamps DS101 and DS102.* The 118 volts ac from pins 3 and 4 of filter FL101 is applied to con-

tacts 3 and 4 of THREADING LAMP switch S102. When switch S102 is in the ON position, 118 volts ac is applied from contacts 1 and 2 to light threading lamps DS101 and DS102.

(4) *Record indicator lamp DS51.* Record indicator lamp DS51 is connected in parallel with and lights when rf power is applied to erase head PU52 (*d* below).

c. Audio Reproduction and Preamplifier Circuits. Audio reproduction may be accomplished optically ((1) below or magnetically (2) below).

(1) *Optical sound reproduction.* When OPTICAL MAGNETIC RECORD switch S51 is in the OPTICAL position, record-reproduce head PU51 and erase head PU52 are deenergized and mechanically withdrawn from the film sound track. When OFF-MOTOR-LAMP switch S103B is in the LAMP position, rf power from the projector-amplifier is applied through P54, through contacts 13 and 14 of S103B and contacts 3 and 14 of OPTICAL MAGNETIC RECORD switch S51A, causing exciter lamp DS52 to light (*b*(2) above) and a beam of light to be directed through the film sound track to photoelectric cell V52. The varying beam of light causes photoelectric cell V52 to vary its resistance in step with the light variations. The 25 volts dc that is applied through pin 5 of P55 to V52 is varied with the resistance of photoelectric cell V52 to produce an audio signal input to the projector-amplifier (para 18).

(NOTE 8, FIG. 96)

(2) *Magnetic sound reproduction.* When OPTICAL MAGNETIC RECORD switch S51 is in the MAGNETIC position, exciter lamp DS52 is disconnected, record-reproduce head PU51 is mechanically moved in contact with the magnetic sound track, and 220 volts dc from the projector amplifier is applied through pin 2 of P55 and contacts 5 and 15 of S51B to the plate circuit of audio preamplifier V51. Filament voltage of 5 volts ac is supplied from the projector amplifier through pins 1 and 8 of P55. The variation in sound track magnetic patterns passing record-reproduce head PU51 produces an audio signal between PU51 and ground which is applied through pins 8 and 16 of OPTICAL MAGNETIC RECORD switch S51C to terminal 1 of the primary winding of transformer T51. Terminal 2 of transformer T51 completes the signal return path to ground. Terminal 3 of transformer T51 applies the audio signal from the output of transformer T51 to the control grid of audio preamplifier tube V51B. Resistor R51 provides grid bias. The audio output signal of audio preamplifier tube V51B is developed across plate load resistor R53 and applied by coupling capacitor C51 to the control grid of audio preamplifier V51A. Resistor R55 provides grid bias. The audio output signal of audio preamplifier V51A is developed across plate load resistor R57 and coupled by capacitors C53 and C54 to pin 4 of P55. The audio signal is applied from pin 4 of P55 to the projector-amplifier (para 18). Resistors R58 and R54 and capacitor C52 provide negative feedback for improved frequency response.

d. Recording Circuits. When OPTICAL MAGNETIC RECORD switch S51 is in the RECORD position, record-reproduce head PU51 and erase head PU52 are mechanically moved in contact with the magnetic sound track. When mixer-amplifier RECORD-STOP switch S304 is momentarily placed in the RECORD position (para 19*a*), relay K101 is in the projector becomes energized and completes the circuit for recording. If re-recording is desired, optical sound reproduction (*c*(1) above) is accomplished and the audio signal that is produced is combined in the mixer-amplifier with the signal to be recorded (para 19*b*), and the combined signal is recorded.

18. Projector-Amplifier
(fig. 97)

The projector-amplifier includes af circuits (*a* below), rf oscillator circuits (*b* below), and power supply circuits (*c* below).

a. *Af Circuits.*

(1) *Audio inputs.*

(a) *Optical sound input.* The audio signal from photoelectric cell V52 (para 17*c*(1)) is applied through pin 5 of P55 and J205 and developed across resistor R201. Coupling capacitor C202 blocks the dc photocell voltage and applies the audio signal to input level resistor R203. Input level resistor R203 adjusts the audio signal level and applies it through resistor R235 to the control grid of af gain tube V201B ((2) below).

(b) *Magnetic sound input.* The audio signal from record-reproduce head PU51 (para 17*c*(2)) is applied through pin 4 of P55 and J205 to isolation resistor R237. The audio signal is applied from isolation resistor R237 to the control grid of af gain tube V201B ((2) below).

(c) *Microphone input.* The audio signal from the microphone is applied to MICROPHONE jack J202. From MICROPHONE jack J202, the audio signal is applied directly to the control grid of af gain tube V201B ((2) below).

(2) *Af gain.* The audio output signal of af gain tube V201B is developed across plate load resistor R206 and applied through coupling capacitor C203 to the control grid of af gain tube V201A. Resistor R205 is the cathode resistor. Resistor R235 is an isolation resistor. Resistor R204 is a grid developing resistor. The audio output signal of af gain tube V201A is developed across plate load resistor R209 and applied to VOLUME control resistor R213 ((3)(*a*) below) through coupling capacitor C208, or coupling capacitors C208 and C210, or coupling capacitors C208, C209, and C210, depending on the setting of TONE control S201B. As TONE control S201B is rotated clockwise, the additional coupling capacitors inserted in series with coupling capacitor C208 progressively accentuate the higher frequencies. Capacitor C207 couples part of the output signal of af gain tube V201A through resistor R210 and the feedback network selected by TONE control S201A. As TONE control S201A is rotated counterclockwise, the feedback networks inserted in parallel with resistor R210 progressively accentuate the lower frequencies.

(3) *Af driver and phase inverter.*

(a) *Af driver.* VOLUME control resistor R213 adjusts the audio signal level and applies it to the control grid of af driver tube V202B. The portion of VOLUME control resistor R213 between terminals 1 and 2 provides bias for af driver tube V202B. The audio output signal of af driver tube V202B is developed across plate load resistor R215 and applied through coupling capacitor C211 to the control grid of phase inverter tube V202A ((*b*) below). Resistor R216 provides grid leak bias for phase inverter tube V202A.

(b) *Phase inverter.* Phase inverter tube V202A is a paraphase amplifier and produces two audio output signals which are equal in amplitude and opposite in phase. One audio output signal of phase inverter tube V202A is developed across plate load resistor R219 and applied through coupling capacitor C212 to the control grid of power amplifier tube V203. The other audio output signal of phase inverter tube V202A is developed across cathode follower resistor R218 and applied through coupling capacitor C213 to the control grid of power amplifier tube V204 ((4) below).

(4) *Power amplifiers.* The audio output signals from power amplifier tubes V203 and V204 are applied alternately to terminal 1 and terminal 3 of transformer T201. The output from transformer T201 is applied through terminals 4 and 5 (speaker selector switch S203 in LOCAL SPEAKER ON position) to operate local speaker LS201 or through terminals 4 and 6 (speaker selector switch S203 in REMOTE SPEAKER ON position) to operate a remote speaker. Resistor R222 and capacitor C223 provide negative feedback from the output of transformer T201 to the cathode of af driver tube V202B to improve stability and flatten frequency response.

b. Rf Oscillator Circuits. The plate supply for rf oscillator tube V205 is furnished through resistor R230. Resistor R230, capacitor C220, and resistor R240 form a decoupling network. Capacitor C219 provides a path for regenerative feedback while keeping the plate supply voltage from oscillator coil T203. Oscillator coil T203 is connected between the control grid of V205 and ground with a cathode tap. Resistor R231, in parallel with rf bypass capacitor C217, provides grid bias voltage. The output voltage from oscillator coil T203 is applied directly to exciter lamp receptacle J204.

c. Power Supply Circuits.

(1) *Ac power supply.* The 118 volts ac from the projector electrical system is applied through connector P201 to power switch S202 and fuse F201. When power switch S202 is at ON, the primary 118 volts ac is applied to power transformer T202. The output of the 530-volt winding of transformer T202 is applied to the plates of rectifier tubes V206 and V207. The output of the 6.3-volt winding of transformer T202 applies power to panel lamp DS201 and to the filaments of tubes V201 through V207 and to resistors R238 and R239. Resistors R238 and R239 reduce the voltage to 5 volts ac and apply it through pins 1 and 8 of P55 and J205 to the filament of audio preamplifier tube V51 in the projector (para 17*c*(2)).

(2) *Dc power supply.* The rectified dc voltage output of rectifier tubes V206 and V207 is applied through resistors R228, R240, and R226 to the plate circuits of tubes V201 and V202, and is applied through termenial 2 of transformer T201 to the plate circuits of power amplifier tubes V203 and V204.

19. Mixer-Amplifier

The mixer-amplifier includes record control circuits (*a* below), signal input circuits (*b* below), af circuits (*c* below), monitoring circuits (*d* below), rf oscillator circuits (*e* below), and power supply circuits (*f* below).

a. Record Control Circuits. The projection set is switched into the record function by mixer-amplifier RECORD-STOP switch S304.

(1) When RECORD-STOP switch S304 (fig. 98) is momentarily placed in the RECORD position, contacts 5 and 6 of S304 open and remove the ground from contacts A and B of relay K301, resistor R327, and capacitor C328; contacts 7 and 8 of RECORD-STOP switch S304 close and apply high-voltage dc from resistor R347 to capacitor C327 and pin 3 of J305 and J103 (fig. 96).

(2) From pin 3 of J103, high-voltage dc is applied, through contacts 4 and 8 of REWIND switch S105 (OFF position) and contacts 11 and 12 of OFF-MOTOR-LAMP switch S103A (MOTOR or LAMP position), to the coil of relay K101. As capacitor C327 ((1) above) charges, relay K101 becomes energized.

(3) When relay K101 becomes energized, contacts C and D close and apply ground to disable the audio preamplifier section of the projector, contacts E and G close and

apply the audio signal and rf bias from pin 1 of J105 through pins 7 and 16 of OPTICAL MAGNETIC RECORD switch S51C (RECORD position) to record-reproduce head PU51, contacts F and G open and disconnect the input of the audio preamplifier from record-reproduce head PU51, contacts A and B close and apply rf power through contacts 10 and 13 of OPTICAL MAGNETIC RECORD switch S51D (RECORD position) to erase head PU52.

(4) The coil of relay K301 is in series with the coil of relay K101 ((2) above). From the coil of relay K101 the high-voltage dc is applied through pin 4 of J105 and J305 (fig. 98) to capacitor C328 and terminal M of the coil of relay K301. As capacitor C328 charges, relay K301 becomes energized.

(5) When relay K301 becomes energized, contacts C and D open and remove the disabling ground from the audio amplifier section of the mixer-amplifier, contacts D and E close and apply the audio signal and rf bias to pin 1 of J305 and J105 ((3) above), contacts K and L close and apply high-voltage dc to capacitor C321 and pin 3 of J305 and J105 to hold relays K301 and K101 energized, contacts H and J close and apply plate voltage from high-voltage rectifier tube V305 through resistor R348 and transformer L301 to the plates of rf oscillator tube V306, contacts F and G close and apply 6.3 volts ac to record indicator DS301, and contacts A and B open and remove the ground from resistor R327.

(6) The recording of clicks and other undesirable noises associated with switching is prevented by the energizing times of relays K101 and K301. Relays K101 and K301 become energized when capacitors C327 and C328 become charged to the energizing voltage of the respective relay. Capacitor C327 charges faster and discharges slower than capacitor C328 and causes relay K101 to become energized approximately 50 milliseconds before relay K301 and deenergized approximately 50 milliseconds after relay K301. When starting to record, all switching is completed before relay K301 applies the audio signal and the rf bias to record-reproduce head PU51; when stopping, relay K301 removes the audio signal and the rf bias from record-reproduce head PU51 before relay K101 deenergizes.

(7) When RECORD-STOP switch S304 is momentarily placed in the STOP position, contacts 3 and 4 of switch S304 open and remove the high-voltage dc from contacts K and L of relay K301 ((5) above), deenergizing relay K301 and relay K101; contacts 2 and 3 of switch S304 close and apply ground through resistor R327 to capacitor C328.

b. Signal Input Circuits.

(1) *CHANNEL 1.*

(a) An audio signal from the microphone or a turntable is connected to CHANNEL 1 receptacle J301 and applied to transformer T301. The output of transformer T301 is applied to the control grid of audio preamplifier tube V301. Resistor R308 is an impedance-matching resistor which also broadens the frequency response of transformer T301. The audio output signal of audio preamplifier tube V301B is developed across plate load resistor R309 and coupled through capacitor C314 to the control grid of audio preamplifier tube V301A.

(b) The audio output signal of audio preamplifier tube V301A is developed across plate load resistor R311 and coupled through capacitor C315 to CHANNEL 1 gain control resistor R301.

(c) CHANNEL 1 gain control resistor R301 adjusts the channel 1

audio level and applies it through decoupling resistor R312 to MASTER gain control resistor R302 (c below).

(d) Resistors R356 and R323 supply fixed bias to audio preamplifier tube V301B. Resistor R310 is a grid developing resistor and supplies audio preamplifier tube V301A with contact bias. Resistor R324 is a cathode bias resistor for audio preamplifier tube V301A. Resistor R355 couples negative feedback from audio preamplifier tube V301A to audio preamplifier tube V301B to improve the frequency response of the audio preamplifier.

(2) *CHANNEL 2.*

(a) An audio signal from the microphone or a turntable connected to CHANNEL 2 receptacle J302 is processed the same as though it were connected to CHANNEL 1 receptacle ((1) above), except that DIALOGUE switch S305 and capacitor C309 have been added to the circuit to increase voice intelligibility.

(b) When DIALOGUE switch S305 is in the OUT position, capacitor C309 is removed from the circuit to increase the coupling of the lower frequencies. When DIALOGUE switch S305 is in the IN position, capacitor C309 is inserted into the circuit to decrease the coupling of the lower frequencies to CHANNEL 2 gain control resistor R303 for increased voice intelligibility.

(c) CHANNEL 2 gain control resistor R303 adjusts the channel 2 audio level and applies it through decoupling resistor R317 to MASTER gain control resistor R302 (c below).

(3) *CHANNEL 3.* An audio signal from the projector optical sound system is connected to CHANNEL 3 receptacle J303 and applied across NARRATOR LEVEL resistor R305 and CHANNEL 3 gain control resistor R304. Impedance matching is provided by the parallel combination of NARRATOR LEVEL control resistor R305 and CHANNEL 3 gain control resistor R304. NARRATOR LEVEL control resistor R305 adjusts the level of the audio signal applied to NARRATOR jack J306. CHANNEL 3 gain control resistor R304 adjusts the CHANNEL 3 audio level and applies it through decoupling resistor R318 to MASTER gain control resistor R302 (c below).

c. Af Circuits.

(1) MASTER gain control resistor R302 mixes the audio signals from CHANNEL 1 gain control resistor R301 (*b*(1) above), CHANNEL 2 gain control resistor R303 (*b*(2) above), and CHANNEL 3 gain control resistor R304 (*b*(3) above). MASTER gain control resistor R302 also adjusts the overall gain of the mixed audio signal and applies it to the control grid of audio amplifier tube V303A. The audio output signal of audio amplifier tube V303A is developed across plate load resistor R328 and applied through coupling capacitor C318 to the control grid of monitor amplifier tube V303B (*d* below), and is also applied through coupling capacitor C319 to the control grid of audio amplifier tube V304A. The audio output signal of audio amplifier tube V304A is developed across plate load resistor R320 and applied through coupling capacitor C330 to the control grid of audio output tube V304B. The audio output signal of audio output tube V304B is applied across the primary of audio output transformer T303.

(2) Resistors R353, R334, and R335 and capacitor C310 provide feedback from the plate of audio output tube V304B to the cathode of audio amplifier tube V304A to improve the low-frequency response. Capacitor C313 and inductor L302 improve the high-frequency re-

sponse. Resistor R354 provides cathode bias for audio amplifier tube V304A. Resistor R321 is the grid-developing resistor for audio output tube V304B. Resistor R333 is a cathode bias resistor for audio output tube V304B. Capacitor C302(7B) and resistor R345 form a decoupling network. Resistor R346 and the primary of output transformer T303 form a voltage-dividing network. Resistor R349 and capacitors C301(7A) and C301(5A) form a decoupling network.

(3) The output from audio output transformer T303 is applied through resistor R341 and contacts D and E of relay K301 (energized) to pin 1 of OUTPUT TO PROJ receptacle J305 and J105. When AUDIO switch S302 is pressed, the output from audio output transformer ~~T203 is~~ T303 applied from one side of resistor R341 through contacts 2 and 5 of AUDIO switch S302, through VU meter M301, and through contacts 1 and 4 of AUDIO switch S302 to the other side of resistor R341, to place VU meter M301 in parallel with resistor R341 and provide an indication of mixer-amplifier output current.

d. Monitoring Circuits. The audio signal is applied to the control grid of monitor amplifier tube V303B from audio amplifier tube V303A (c(1) above). The audio output signal of monitor amplifier tube V303B is developed across plate load resistor R331 and is applied to coupling capacitor C306. Coupling capacitor C306 applies the audio signal to AUDIO ADJ. control R307 and to resistor R322. Resistor R322 drops the audio signal to a suitable voltage and applies it to MIXER jack J307. AUDIO ADJ. control R307 adjusts the level of the audio signal and applies it as an input voltage to VU meter M301. During operation, the input voltage to VU meter M301 is representative of the audio output current. When AUDIO switch S302 is pressed, VU meter M301 is connected across resistor R341 to indicate actual audio output current. When BIAS switch S303 is pressed, VU meter M301 is connected to read rf bias output current.

e. Rf Oscillator Circuit. The rf oscillator circuit uses a cathode-coupled multivibrator with a resonant plate circuit. Resistor R306 controls the output amplitude by adjusting the cathode bias of rf oscillator tube V306. Resistors R338 and R339 are grid return resistors. Capacitors C325 and C326 couple the output signal from the conducting section to the nonconducting section of rf oscillator tube V306. Resistors R351 and R352 are decoupling resistors. The output frequency is determined by transformer L301 and capacitor C308. Resistor R348 and capacitor C303 are a decoupling network.

f. Power Supply Circuits. The 118 volts ac from the power source is applied through ON-OFF switch S301 (ON position) and fuse F301 to power transformer T304. The output from the 6.3-volt winding of power transformer T304 furnishes filament voltage for tubes V301 through V306 and operating voltage for lamps DS301 through DS303. The output from the 550-volt winding of power transformer T304 is applied to the plates of high-voltage rectifier tube V305. The output of high-voltage rectifier tube V305 is applied through voltage-dividing resistors R349 and R346 to the plate circuits of tubes V301 through V304, through resistor R347 as energizing power for relays K301 and K101 (para 19), and through resistor R348 (relay K301 energized) to the plate circuits of rf oscillator tube V306. Resistor R349 and capacitor C301 provide decoupling, and resistor R346 and capacitors C301(7A) and C301(5A) form a filter network.

CHAPTER 3

TROUBLESHOOTING

Section I. GENERAL TROUBLESHOOTING INFORMATION

Warning: When troubleshooting or making repairs in this equipment, be extremely careful. High voltages are present internally. Use insulated test probes when making the required voltage measurements. Always disconnect the power cable from the equipment before touching any of the internal parts.

20. General Instructions

a. Troubleshooting at field and depot maintenance level includes all the techniques outlined for organizational maintenance and any special or additional techniques required to isolate a defective part. The field and depot maintenance procedures are not complete in themselves but supplement the procedures described in organizational maintenance (TM 11-6730-210-20). The systematic troubleshooting procedure, which begins with the operational and sectionalization checks at an organizational level, must be completed by further localizing and isolating techniques. Paragraphs 24 through 43 provide *unit* troubleshooting procedures which are performed at the field and depot maintenance level.

b. Troubleshooting may be performed while the equipment is operating or, if necessary, after the equipment (or a part of it) has been removed from service. When trouble occurs, certain observations and measurements can be made that will help to determine the source of trouble. Usually, when troubleshooting is performed while the equipment is operating, it is done at the organizational level. Troubleshooting at the field level is usually done with the component removed from the equipment with which it is normally associated. Paragraphs 21 and 22 describe the systematic procedures to be followed which will enable the maintenance personnel to isolate the cause of the trouble and correct the fault.

21. Organization of Troubleshooting Procedures

a. General. The first step in servicing a defective equipment is to sectionalize the fault. Sectionalization (TM 11-6730-210-20) means tracing the fault to a major component. The second step is to localize the fault. Localization means tracing the fault to the defective section, stage, or unit. The third step, isolation, means tracing the fault to the defective part. Some faults, such as pooor rewind action, defective film transport mechanism, or binding of mechanical components, can often be isolated by sight, touch, or hearing. The majority of faults, however, must be isolated by detailed electrical, mechanical, and optical checks.

b. Sectionalization Check. After the trouble has been sectionalized, make a general operational test of the suspected unit. The general operational test serves as a check of the sectionalizing test.

(1) *Visual inspection.* The purpose of visual inspection is to locate faults without testing or measuring circuits or components. All visual signs should be analyzed to help localize the fault to a particular subchassis, stage, or unit. Mechanical faults are most often localized through visual inspection.

(2) *Pluckout parts.* Defective tubes and other pluckout parts will be the cause of many troubles. After checking suspected tubes, remove and test all pluckout parts sus-

pected of being faulty (TM 11-6730-210-20). Replace each defective part with an identical part known to be good.

c. Localization. The tests listed below will aid in localizing the trouble. First, localize the trouble to a section or unit; then isolate the trouble within that section or unit by electrical, mechanical, or optical checks as required. Use the following methods of trouble localization:

(1) *Troubleshooting chart.* The trouble symptoms listed in this chart (para 23) will aid in localizing trouble to a component part.

(2) *Performance tests.* A check of equipment performance (para 25, 27, and 37) will aid in determining whether or not the equipment is performing up to expected standards.

d. Isolation.

(1) *Voltage and resistance measurements.* When troubles have been localized to a particular stage, or circuit, make voltage and resistance checks to aid in isolating the trouble. Use resistor and capacitor color codes (fig. 91 and 92) to find the value of these components. Use voltage and resistance charts (para 28 through 34) to find normal readings, and compare them with the readings taken.

(2) *Intermittent troubles.* In all tests, the possibility of intermittent troubles should not be overlooked. If present, this type of trouble often may be made evident by lightly tapping or jarring the equipment. Check the wiring (fig. 99, 100, and 101) and connections to the units of the projection set.

(3) *Optical troubles.* Troubles in optical systems can usually be located by performing step-by-step checks and comparing the results with the expected normal indications.

22. General Troubleshooting Procedures

a. General. Troubleshooting information for Projector, Motion Picture, Sound AQ-4A(1), including its internal amplifier and speaker, is contained in paragraphs 24 through 34. Troubleshooting information for Amplifier, Audio Frequency BQ-5A is contained in paragraphs 35 through 43. The troubleshooting chart (para 23) supplements the equipment performance checklist (TM 11-6730-210-10) and troubleshooting chart (TM 11-6730-210-20).

b. Preliminary Check. Before disassembling the equipment, conduct a thorough and practical test to determine the conditions that might exist. Examine the section believed to be causing the trouble and note the following, where applicable:

(1) Shutter action and film transport mechanism.

(2) Binding of mechanical components.

(3) Operational test for brightness of projection optical system.

(4) Operational test for performance of sound system.

c. Sluggish or Stiff Operation. Sluggishness in the film transport and shutter mechanism may be caused by dirt, congealed lubricants, poor adjustment, or burrs on rotating parts. Stiffness in the operating controls may be caused by dust or dirt on control shaft bearing surfaces.

23. Troubleshooting Chart

Before using the troubleshooting chart, perform the operations given in the equipment performance checklist (TM 11-6730-210-10) and the organizational troubleshooting chart (TM 11-6730-210-20), unless the trouble has already been localized.

Item No.	Symptom	Probable cause	Corrective measure
1	Light pressure causes takeup drive pulley to turn to left.	Defective takeup drive pulley clutch.	Repair defective takeup drive pulley clutch (para 82).
2	Takeup drive pulley does not turn freely to right.	Defective takeup drive pulley clutch.	Repair defective takeup drive pulley clutch (para 82).
3	Light pressure causes rewind drive pulley to turn to right.	Defective rewind drive pulley clutch.	Repair defective rewind drive pulley clutch (para 82).

Item No.	Symptom	Probable cause	Corrective measure
4	Rewind drive pulley does not turn freely to left.	Defective rewind drive pulley clutch.	Repair defective rewind drive pulley clutch (para 82).
5	One threading lamp does not light when THREADING LAMP switch is operated to ON. Lamp is not defective.	Defective wiring or socket.	Repair or replace defective wiring or socket (para 49).
6	THREADING KNOB binds ----------	Projector mechanism binding.	Locate and repair binding in projector mechanism (para 34*b*).
7	Projector mechanism and blower fan do not operate when OFF-MOTOR-LAMP switch is operated to MOTOR. Fuse is not defective.	Defective OFF-MOTOR-LAMP switch.	Replace defective OFF-MOTOR-LAMP switch (para 70).
8	Projector mechanism, blower fan, and projection lamp do not operate when OFF-MOTOR-LAMP switch is operated to LAMP. Fuse is not defective.	Defective OFF-MOTOR-LAMP switch.	Replace defective OFF-MOTOR-LAMP switch (para 70).
9	Projector mechanism and blower fan operate but projection lamp does not light when OFF-MOTOR-LAMP switch is in LAMP position. Lamp is not defective.	*a.* Defective OFF-MOTOR-LAMP switch. *b.* Defective wiring or socket.	*a.* Replace defective OFF-MOTOR-LAMP switch (para 70). *b.* Repair or replace defective wiring or socket (para 49).
10	Projector drive motor operates with OFF-MOTOR-LAMP switch in MOTOR or LAMP position, but mechanism does not operate.	Drive chain disengaged or drive chain sprocket loose or defective.	Engage drive chain; tighten loose sprocket or replace if defective (para 55).
11	Turning elevation knob does not raise or lower projected image. Elevation knob or pin is not defective.	Defective elevation mechanism.	Repair or replace defective tilting mechanism (para 59).
12	Illumination of projected image is uneven. Movement of lamp adjustment levers does not help.	Defective condenser lens assembly.	Repair defective condenser lens assembly (para 65).
13	Lens does not slide back and forth freely for focusing when lens locking screw is loosened.	Defective lens mounting --	Repair defective lens mounting (para 54).
14	Impossible to focus all four edges of projected frame simultaneously. Lens axis is perpendicular to screen.	Defective aperture plate --	Repair defective aperture plate (para 63).
15	Projection lamp, blower fan, or projector mechanism continues to operate after OFF-MOTOR-LAMP switch is operated to OFF.	Defective OFF-MOTOR-LAMP switch.	Replace defective OFF-MOTOR-LAMP switch (para 49).
16	Automatic loopsetter does not automatically restore picture clarity. Adjustment of automatic loopsetter does not help.	Defective automatic loopsetter.	Repair defective automatic loopsetter (para 83).
17	Exciter lamp indicator does not glow after projector amplifier warmup period. Exciter lamp is not defective. Amplifier tube 6005/6AQ5W is not defective.	Defective rf power supply circuitry.	Repair or replace defective rf power supply circuitry (para 31).
18	Speaker selector switch does not cause indicated speaker to operate.	*a.* Defective speaker selector switch. *b.* Defective speaker -----	*a.* Replace defective speaker selector switch. *b.* Replace defective speaker (para 84).
19	Vertical lines observed on screen above or below white objects (picture travel ghost).	Defective or incorrectly adjusted shutter.	Synchronize shuttle and shutter (para 132).
20	Sound weak, even with VOLUME control knob turned up. Amplifier tubes and exciter lamp are not defective. Sound optical system is not dirty.	Defective speaker -------	Replace defective speaker (para 84).

Item No.	Symptom	Probable cause	Corrective measure
21	Projector record indicator lamp does not glow when OPTICAL MAGNETIC RECORD switch S51 is placed in RECORD position. No sound in headset when monitoring NARRATOR jack.	*a.* Defective switch S51 circuitry. *b.* Defective NARRATOR jack. *c.* Defective NARRATOR LEVEL control resistor R305.	*a.* Repair or replace defective switch S51 circuitry (para 144). *b.* Replace defective NARRATOR jack (para 143). *c.* Replace defective resistor R305 (para 143).
22	Sound audible when monitoring NARRATOR jack, but no sound when monitoring MIXER jack.	Defective MIXER jack ----	Replace defective MIXER jack (para 144).
23	No sound when monitoring MIXER or NARRATOR jack.	*a.* Defective headset ----- *b.* Defective mixer-amplifier power cable.	*a.* Replace defective headset. *b.* Repair or replace defective power cable (para 25).
24	Mixer-amplifier indicator lamp does not glow when with RECORD-STOP switch in RECORD position. Lamp is not defective.	Defective RECORD-STOP switch.	Replace defective RECORD-STOP switch (para 144).
25	Volume-unit meter does not register sound intensity. Bias adjustment has no effect.	Defective BIAS ADJ potentiometer or meter.	Replace defective BIAS ADJ potentiometer or meter (para 144).
26	DIALOGUE switch has no effect on highs and lows of recorded voice.	Defective DIALOGUE switch or faulty amplifier circuitry.	Replace defective DIALOGUE switch; repair or replace defective amplifier circuitry.
27	Magnetic sound does not record on film. Recording cable is not defective.	*a.* Defective RECORD-STOP switch. *b.* Defective record head *c.* Defective relay K101 --	*a.* Replace defective RECORD-STOP switch (para 144). *b.* Repair or replace defective record head. *c.* Replace defective relay K101 (para 104).

Section II. TROUBLESHOOTING PROJECTOR

24. Test Equipment, Tools, and Lubricants Required

The following chart lists the test equipment and tools required for troubleshooting the projection set:

Item	Technical manual
Audio Oscillator TS-382(*)/U[a].	TM 11-6625-261-12
Electronic Tachometer TS-806/U.	TB SIG 306
Frequency Meter FR-67/U--	TM 11-2698
Multimeter ME-26(*)/U[b] ---	TM 6625-200-12
Multimeter TS-352(*)/U[c] ---	TM 11-5527
Spectrum Analyzer TS-723(*)/U[d].	TM 11-5097
Voltmeter, Meter ME-30(*)/U[e].	TM 11-6625-320-12
Special dummy load (para 35).	
Tool Kit, Photographic Repair TK-109/GF.	
Tool Kit, Photographic Repair TK-116/GF.	
Lubricating Oil, General Purpose (2135) (FSN 9150-231-6664).	
Grease, Automotive and Artillery (GAA) (FSN 9150-190-0904).	
Grease, Aircraft and Instrument (GL) (FSN 9150-261-8297).	

[a] Indicates TS-382A/U, TS-382B/U, TS-382D/U, TS-382E/U, or TS-382F/U.

[b] Indicates ME-26/U or ME-26B/U.

[c] Indicates TS-352/U, TS-352A/U, or TS-352B/U.

[d] Indicates TS-723A/U, TS-723B/U, or TS-723C/U.

[e] Indicates ME-30B/U or ME-30C/U.

25. General Performance Checks

When the projector set is received for repair, if the operational defects are not known, set up the equipment and perform the equipment performance checklist procedures (TM 11-6730-210-10). During this operational check, pay particular attention to the following items:

a. Projector. When the OFF-MOTOR-LAMP switch is placed in the MOTOR position, if any of the symptoms listed below are noted, immediately place the switch in the OFF position and determine the source of the trouble before completing the checks.

(1) Smoke rising from the projector.
(2) Unusual sounds such as squeaks, chatters, or squeals.
(3) Sound of arcing or burning in the projector.

b. Amplifier. When the amplifier ON-OFF switch is placed in the ON position, if any of the symptoms listed in (1), (2), and (3) below are noted, immediately place the switch in the OFF position and determine the source of the trouble before completing the checks.

(1) Smoke rising from the amplifier.
(2) Exesssive heating of transformers, filter capacitors, or interconnecting cabling.
(3) Sound of arcing or burning in the amplifier.

c. Magnetic Recording Troubles. If any troubles are indicated, make a continuity check of the cables used (fig. 9). Eliminate them as a possible source of trouble before troubleshooting further.

26. Localizing Sound Troubles

a. General Procedures. When sound troubles are indicated, determine if the failure is in the optical sound reproduction, in the magnetic sound reproduction, or in both the optical and magnetic sound reproduction. This can best be accomplished by operating the projector with sound film (both optical and magnetic) known to be of acceptable quality. If magnetic sound film reproduces satisfactorily but optical sound film does not, check the sound optical system as outlined in *b* below. If optical sound film reproduces satisfactorily but magnetic sound film does not, check the sound magnetic system as outlined in *c* below. If neither the optical nor the magnetic sound film reproduces satisfactorily, check the projector amplifier circuitry (*d* below).

b. Checking Sound Optical System.

(1) When OFF-MOTOR-LAMP switch S103 (TM 11-6730-210-10) is in the LAMP position and the OPTICAL button is pressed fully in, exciter lamp DS51 should light. If the lamp does not light, replace it with one known to be good. If the new lamp fails to light, replace tube V205 (fig. 10) in the projector-amplifier.

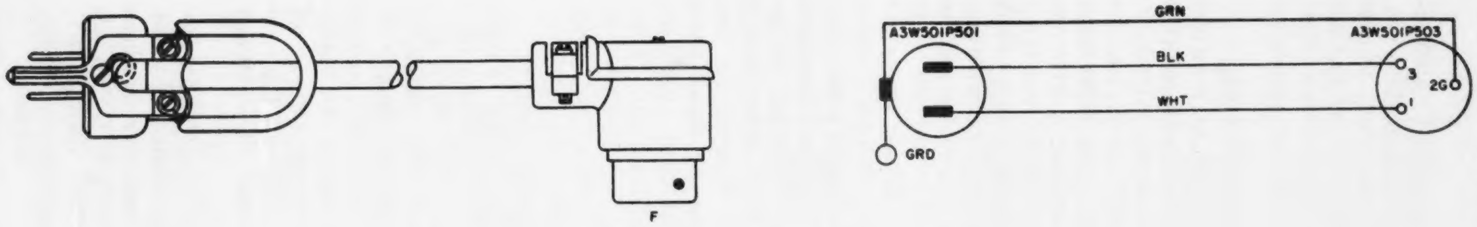
(2) With no film in the projector and the amplifier VOLUME control (TM 11-6730-210-10) at the midposition, insert and withdraw a piece of cardboard or opaque paper between the sound drum and the sound scanning lens, interrupting the optical light path. This action should produce a plop sound in the speaker; if it does not, check for a defective photoelectric cell circuit, a misaligned light path, a defective amplifier or speaker, or an obstruction such as oil, dirt, or film chips in the light path.

c. Checking Sound Magnetic System.

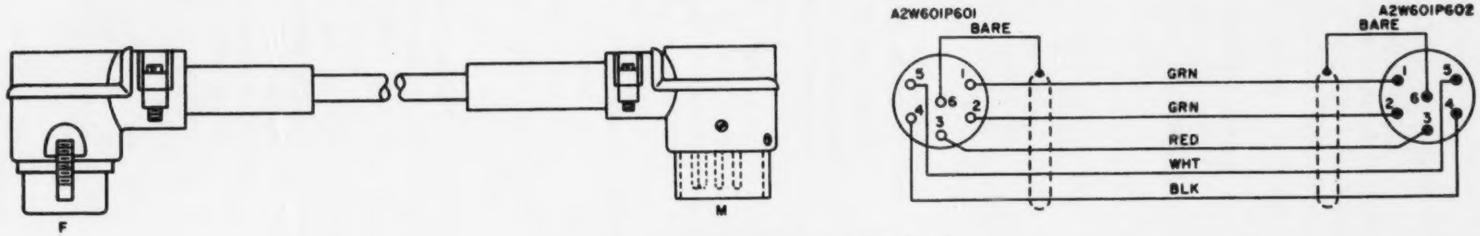
(1) With OFF-MOTOR-LAMP switch S103 in the MOTOR position, REWIND switch S105 in the OFF position, amplifier power switch S202 in the ON position, and the OPTICAL MAGNETIC RECORD switch S51 on the soundhead in the MAGNETIC position; move a piece of magnetic sound track past the record-reproduce head (fig. 15) and check for a sound.

(2) If sound is not heard, check for defective audio preamplifier tube V51, defective record-reproduce head PU51, defective OPTICAL MAGNETIC RECORD switch S51, or defective soundhead to amplifier wiring.

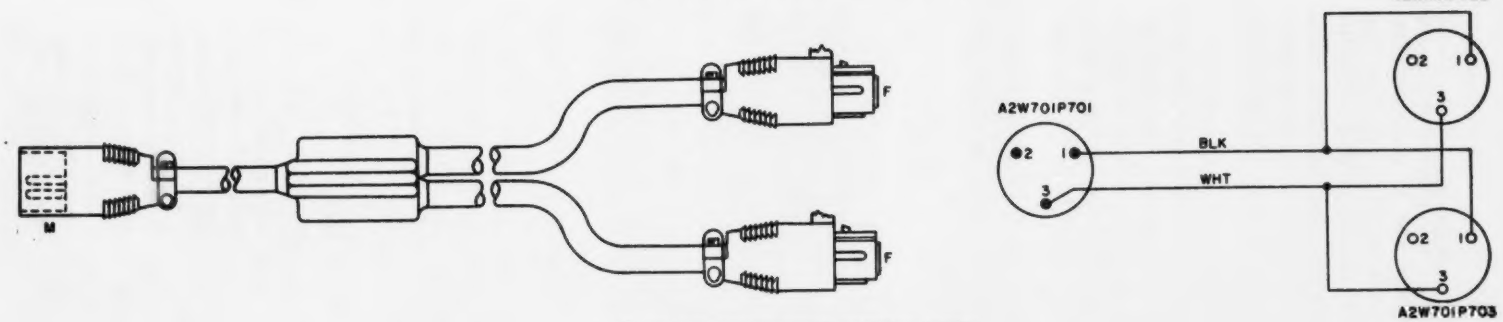
d. Checking Amplifier and Loudspeaker. To check the amplifier and loudspeaker,



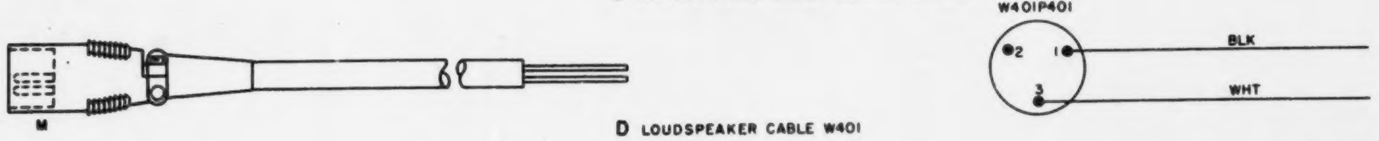
A PROJECTOR POWER CABLE ASSEMBLY A3W501



B RECORDING CABLE ASSEMBLY A2W601



C RE-RECORDING CABLE ASSEMBLY A2W701



D LOUDSPEAKER CABLE W401

EL6730-210-35-C3-TM-15

Figure 9. Projector set cable assemblies.

first check amplifier fuse F201 (fig. 97). If in doubt, replace fuse F201 to eliminate it as a possible source of trouble. Operate power switch S202 to ON. If pilot lamp DS201 does not light, replace it with a lamp known to be good. If the new pilot lamp does not light, check for filament voltage at terminals 6 and 8 of transformer T202. If, after allowing approximately 1 minute for the amplifier to warm up, the tubes show no sign of heating, check to see that ac power is being delivered to the amplifier. If pilot lamp DS201 (fig. 11) and the tube filaments are operating properly but no sound is produced, proceed as follows:

(1) Set speaker selector switch S203 to the LOCAL SPEAKER ON position. With no film in the projector, place OFF-MOTOR-LAMP switch S103 in the MOTOR position and rotate VOLUME control R213 fully clockwise; move power output tube V204 (fig. 10) in and out of its socket. Noise from the speaker as the tube pins make and break contact with the socket is an indication that the loudspeaker and tube V204 are operating.

(2) Repeat the procedure given in (1) above with power output tube V203 and listen for noise from the speaker, indicating that the tube is in good condition.

(3) If noise was produced in the procedure given in (1) or (2) above, but not in both procedures, replace the power output tube that did not produce a noise. If no noise was produced when either power output tube was moved, check the loudspeaker connections. If the connections are intact, replace rectifier tubes V206 (fig. 10) and V207 (fig. 11) and repeat the procedures given in (1) and (2) above.

(4) If noise was produced in the procedures given in (1) and (2) above, repeat the procedure given in (1) above with tube V202 (fig. 10). A similar noise of greater intensity should be heard from the loudspeaker. If no noise is produced, replace tube V202.

(5) Repeat the procedure given in (4) above, with tube V201. If no noise is produced, replace tube V201.

27. Projector-Amplifier Performance Checks

a. *General.* Although housed in the same cabinet with the projector, the amplifier component can be checked independently for adequate performance capabilities. Use the troubleshooting chart (para 23) and trouble localizing procedures (para 28 through 32) to isolate and correct amplifier troubles.

b. *Special Precautions During Testing.* When making performance tests, the following points must be observed to insure correct measurements:

(1) Use Multimeter ME-26(*)/U for dc measurements.

(2) Make all voltage and resistance measurements between the voltage point and circuit ground.

(3) Make measurements of input signal voltage carefully to avoid parasitic pickup of hum.

(4) Use a common ground for all test equipment and the amplifier when making electrical measurements.

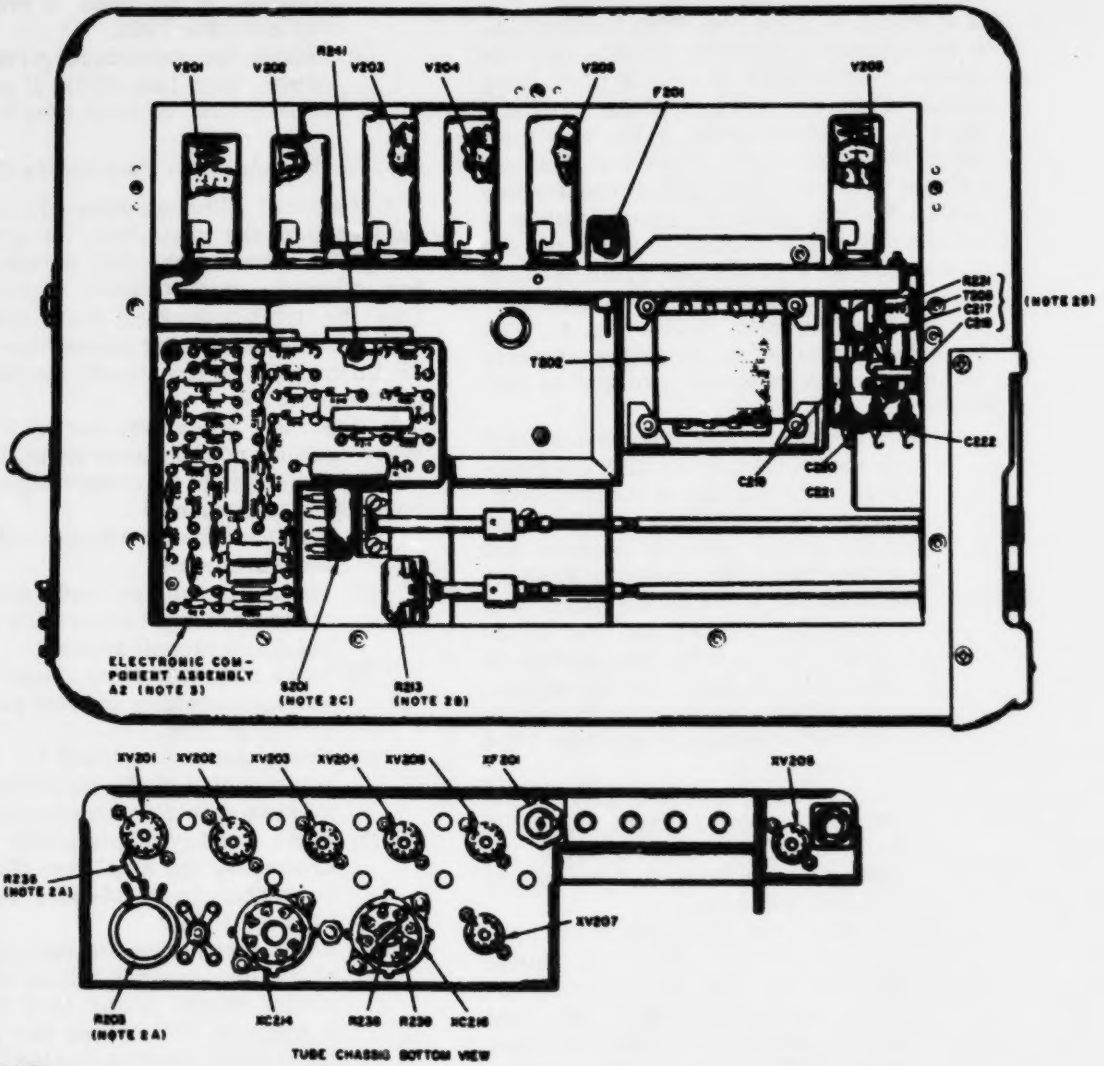
(5) When making output power measurements, the amplifier should be connector to a 16-ohm resistor (dummy load).

(6) When measuring the performance of the tone control, adjust the amplifier output power to a level of 2 watts at 700 cycles per second (cps) (5.67 volts across the 16-ohm resistor) to prevent the amplifier power output stage from being overloaded and producing erroneous readings.

(7) Test all tubes (TM 11-6730-210-20) before making tube voltage measurements.

28. Localizing Projector-Amplifier Troubles

The operation of the projector amplifier depends on four interdependent current paths. The current paths and the paragraphs giving localizing procedures are



NOTES:

1. PREFIX REFERENCE DESIGNATORS WITH A3A1 UNLESS OTHERWISE SPECIFIED.
2. PREFIX REFERENCE DESIGNATORS AS FOLLOWS:
   A. A3A1A4
   B. A3A1A6
   C. A3A1A7
   D. A3A1A8
3. PREFIX ASSEMBLY COMPONENTS WITH A3A1A2

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Figure 10. Projector-amplifier parts location, front view.

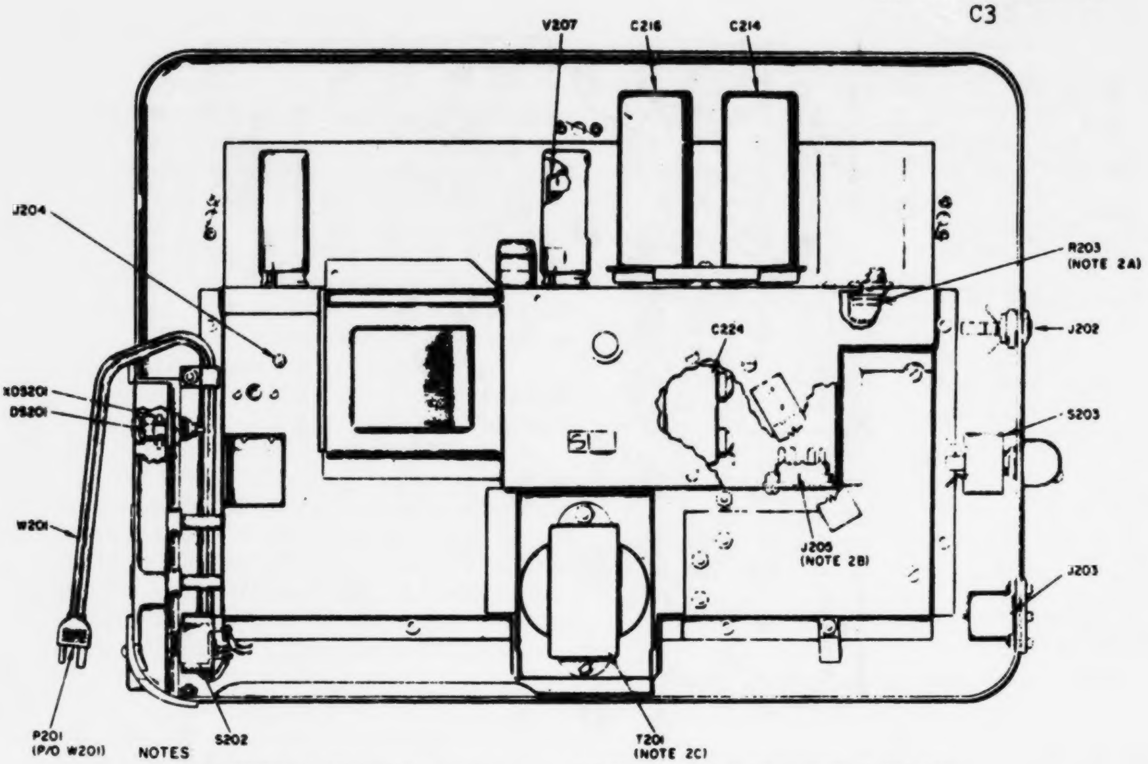
listed below. The amplifier will operate properly only if all the voltages along these paths are correct. The proper operation of each path depends on the preceding one, in the order listed.

a. Ac power stage (para 29).
b. Dc power supply (para 30).
c. Rf power supply (para 31).
d. Af signal circuit (para 32).

29. Ac Power Stage, Projector-Amplifier

a. Localizing Trouble.

(1) Measure the tube voltages (fig. 12).



NOTES

PREFIX REFERENCE DESIGNATORS WITH A3A1 UNLESS OTHERWISE SPECIFIED

2 PREFIX REFERENCE DESIGNATORS AS FOLLOWS
A A3A1A4
B A3A1A6
C A3A1A8

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Figure 11. Projector-amplifier parts location, back view.

(2) Measure the power transformer voltages (*b* below).

b. Power Transformer T202, Voltage Chart.

Measure between terminals	Ac voltage (± 10%)
1-2	118
3-4	265
4-5	265
3-5	530
6-7	3.1
7-8	3.1
6-8	6.3

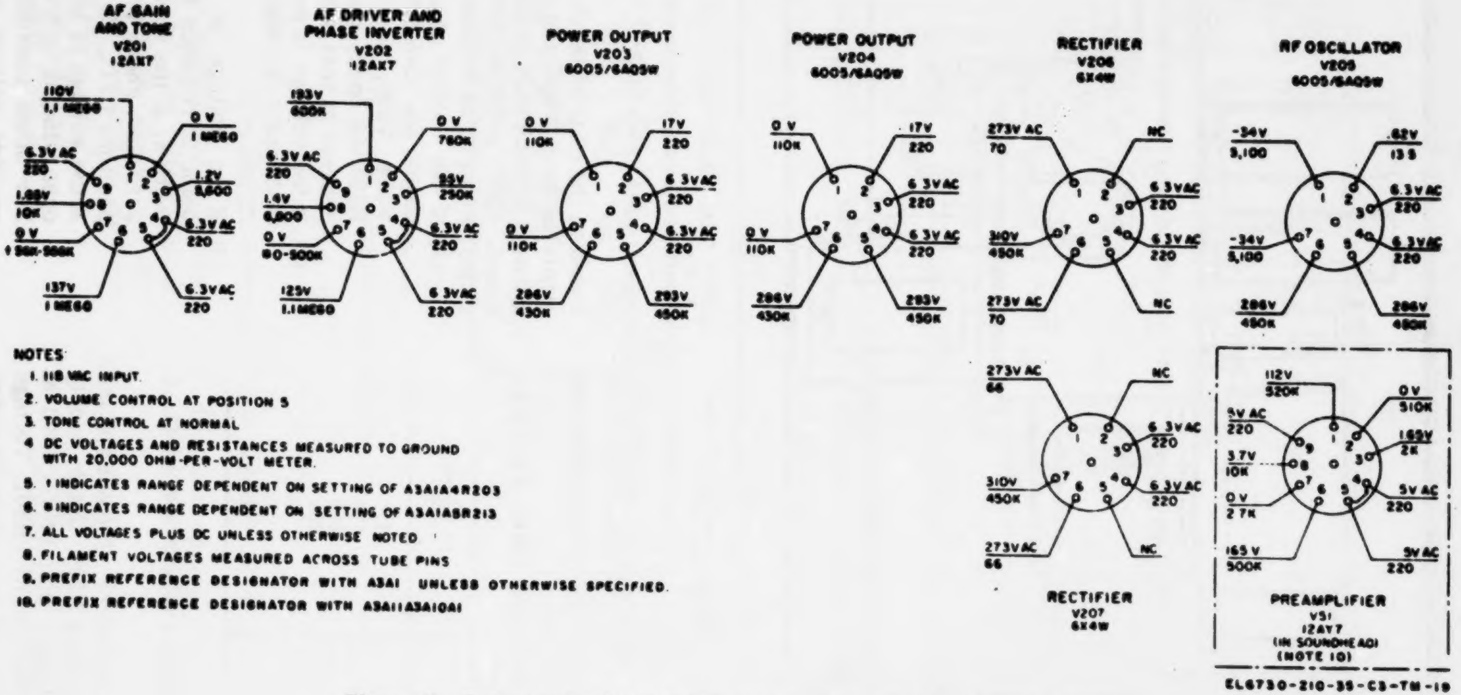
30. Dc Power Supply, Projector-Amplifier (fig. 13)

a. Localizing Troubles. Except for the measurement at tube V206, the dc supply distribution voltages can be checked at amplifier terminal board TB201. Voltage measurements should be made in the order listed in the chart (*b* below). The measurements at tube V206 and at test points 1 through 4 check both optical and magnetic sound. Test point 5 checks only optical sound. Proceed as follows:

(1) If the voltage at tube V206 is low, check for defective tube V203, V204, V206, or V207. If resistor R228 is open, no voltage will be present at test point 1.

(2) If the voltage is present but low at test point 1, check capacitor C216B.

(3) If no voltage is present at test point 2, resistor R240 may be defective. If the voltage at test point 2 is low, check tube V202 and capacitors C211, C214C, and C216C. If the voltage is high, check for an open winding in transformer T203. For other possible causes of incorrect voltage at test point 2,



NOTES:

1. 118 VAC INPUT.
2. VOLUME CONTROL AT POSITION 5
3. TONE CONTROL AT NORMAL
4. DC VOLTAGES AND RESISTANCES MEASURED TO GROUND WITH 20,000 OHM-PER-VOLT METER.
5. † INDICATES RANGE DEPENDENT ON SETTING OF A3A1A4R203
6. * INDICATES RANGE DEPENDENT ON SETTING OF A3A1A8R213
7. ALL VOLTAGES PLUS DC UNLESS OTHERWISE NOTED
8. FILAMENT VOLTAGES MEASURED ACROSS TUBE PINS
9. PREFIX REFERENCE DESIGNATOR WITH A3A1 UNLESS OTHERWISE SPECIFIED.
10. PREFIX REFERENCE DESIGNATOR WITH A3A11A3A10A1

Figure 12. Projector-amplifier tube sockets, voltage and resistance diagram.

check tube V205 and capacitor C217.

(4) If there is no voltage at test point 3, check capacitor C214B for shorts. If the voltage at test point 3 is high or low, check tube V201; if the voltage is low, check for a shorted capacitor C203.

(5) If an incorrect reading is obtained at test point 4, check capacitor C214A, preamplifier tube V51, or the signal path to tube V51.

(6) If an incorrect reading is obtained at test point 5, check for shorted photoelectric cell V52.

b. Dc Voltage Chart. The voltages at the points indicated in the following chart are correct for a 118-volt ac line input. Set the OPTICAL MAGNETIC RECORD switch S51 to RECORD position and use multimeter ME-26(*)/U to measure between each indicated test point and ground.

Test point	Dc voltage (± 10%)
Pin 7 of tube V206 (fig. 12) ---	+310
Test point 1 (fig. 13) --------	+305
Test point 2 ----------------	+265
Test point 3 ----------------	+245
Test point 4 ----------------	+228
Test point 5 ----------------	+25

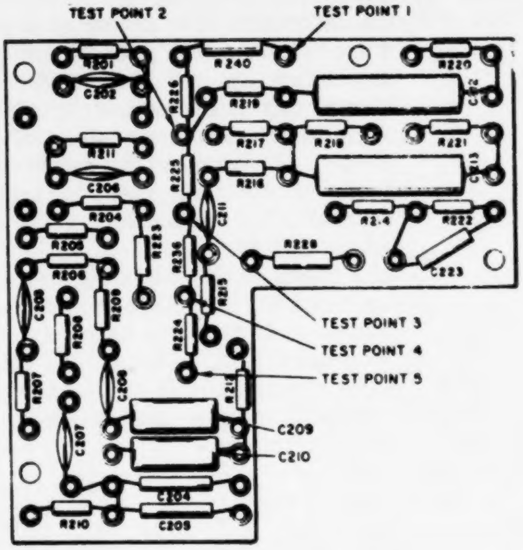
31. Rf Power Supply, Projector-Amplifier (fig. 97)

a. Localizing Trouble. Use Multimeter ME-26(*)/U for all dc and rf voltage measurements, and measure between the terminals given in the chart in *b* below.

(1) Place OFF-MOTOR-LAMP switch S103 in the LAMP position and note if the exciter lamp (known to be in operating condition) lights.

(2) If the exciter lamp does not light, remove and connect it across terminals 2 and 4 of transformer T203. If the lamp still does not light, the trouble is in the rf oscillator. If the lamp lights check the projector wiring ((3) below).

(3) Measure the voltage at exciter lamp connector J204 as indicated in the chart (*b* below). If the voltage is correct, proceed to paragraph 32. If the voltage is incorrect, proceed to (4) below.



NOTE:
PREFIX REFERENCE DESIGNATORS WITH A3A1A2
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Figure 13. Projector-amplifier terminal board, TB201.

(4) Measure the voltage at terminals 2 and 4 of transformer T203 (*b* below). This measurement will test the output of transformer T203 to connector J204. If the voltage is correct, repeat the procedure given in (3) above; then perform the procedure given in (5) below. If the voltage is incorrect, disconnect the projector from the power source and make a continuity test at terminals 2 and 4 to check the output winding of transformer T203. Check the wiring between transformer T203 and receptacle J204.

(5) Measure the voltage across the green and white leads and across the yellow and white leads of transformer T203 (*b* below). If the voltages are correct, perform the procedure given in (6) below. If any voltage is incorrect, make a continuity test of transformer T203 and replace if faulty.

(6) Measure the voltages at tube V205 as indicated in *b* below to determine whether the proper voltages are being applied to tube V205. If these voltages are correct, perform the procedures given in (7) below. If voltages are incorrect, make a continuity test of transformer T203, capacitors C217 and C218, and resistor R231 for shorts and opens. Also check socket connections for tube V205. Replace any components found to be faulty.

b. Rf Voltage Chart. Place OFF-MOTOR-LAMP switch S103 in the LAMP position and make voltage measurements at the following points:

Name of part	Measure between terminals	Voltage (± 10%)	
		Rf	Dc
Exciter lamp	Not marked	5 to 6	0
Transformer T203.	Neut-blk	5 to 6	0
	GRN-WHT	150	+.5
	Terminals 1 and 2.	110	+.5
Rf oscillator tube V205.	2-ground	110	+.5
	5-ground	1.1	+286

32. Af Signal Circuit, Projector-Amplifier (fig. 97)

a. Localizing Trouble. Make measurements starting at the output end of the af signal circuit and work back toward the input end. When a stage is found where all voltages are correct, the circuit is functioning properly from that stage to the input, and the trouble is in the succeeding stages.

(1) Place power switch S202 in the ON position and allow 1 minute for the amplifier to warm up. Set VOLUME control R213 to position 5 and TONE control S201 to NOR (normal). Connect a 16-ohm, noninductive resistor across pins 1 and 3 of REMOTE SPEAKER connector J203 and place speaker selector switch S203 in the REMOTE SPEAKER ON position. Use the ME-30(*)/U when measuring af voltages. Use the ME-26(*)/U for all other measurements. Connect the ME-26(*)/U across MICROPHONE connector J202. Connect the TS-382(*)/U to pins 3 and 5 of connector J205 and adjust the output of the TS-382(*)/U for a reading of 180 millivolts at 1,000 cps.

(2) Measure the audio voltage at connector J203 and compare with the voltage indicated in the chart in *b* below. Remove the input signal voltage from connector J205 and again check the voltage at connector J203. There should be no voltage at connector J203. If voltage is present, the amplifier is oscillating; check for an open load circuit on tube V203 or V204, or check to see if the primary and secondary leads of transformer T201 are reversed.

(3) Place speaker selector switch S203 in the LOCAL SPEAKER ON position, measure the voltage at the internal speaker, and compare with the voltage indicated in the chart (*b* below). If the voltage is incorrect, follow the procedure given in (4) below. If the voltage is correct, check switch S203, receptacle J203, and the interconnecting wiring. Replace defective parts.

(4) Place speaker selector switch S203 in the REMOTE SPKR ON position. Measure the voltages at the points of transformer T201 indicated in the chart (*b* below). If any voltage is incorrect, follow the procedure given in (5) below. If all voltages are correct, look for trouble in the parts or connections to parts given in (2) and (3) above.

(5) Measure the tube voltages in the order indicated in the chart until a stage is reached where all voltages are correct. The trouble should be in one of the stages already checked. Work back through these stages; check and replace faulty components until the trouble is eliminated. Be sure to check component connections.

(6) Measure the voltages at connector J202 (*b* below). If the voltages are

correct, check the VOLUME and TONE control circuits. If the voltages are incorrect, check all parts and connections to parts given in (2) through (5) above; replace defective components.

b. Dc and Af Voltage and Resistance Chart. Make all resistance measurement with power switch S202 in the OFF position; make voltage measurements with power switch S202 in the ON position.

Name of part	Measure at terminal	Dc volts (±10%) from ground	Af volts (±10%) from ground	Resistance (±10%) from ground (ohms)
REMOTE SPEAKER connector J203	1	0	11	1.0
Internal speaker LS201 ------------	Not marked	0	7.75	1.0
Output transformer T201 ---------	1	+260	150	1 mego
	2	+280	0	1 mego
	3	+260	150	1 mego
	4	0	0	0
	5	0	7.75	1.0
	6	0	11	1.0
Power amplifier tubes V203 and V204.	1	0	8.8	110K
	2	+17	0	220
	3	+17	3.1	220
	4	+17	3.1	220
	5	+293	150	450K
	6	+286	0	500K
	7	0	9.6	110K
Af driver and phase inverter tube V202.	1	+193	9.6	700K
	2	0	10	760K
	3	+55	10	205K
	4	+17	3.1	220
	5	+17	3.1	220
	6	+125	9.8	1.1 mego
	7	0	1.1[a]	0 to 500 K[a]
	8	+1.4	1.1	6,800
	9	+17	3.1	220
Af gain tube V201 ----------------	1	+110	16.5	1.1 mego
	2	0	0.75	1 mego
	3	+1.2	0.5	5,600
	4	+17	3.1	220
	5	+17	3.1	220
	6	+137	0.78	1 mego
	7	0	0.190	56K-556K[b]
	8	+1.65	0.160	10K
	9	+17	3.1	220
MICROPHONE receptacle J202 ----	Not marked	0	-------	256K-756K[b]

[a] Depends on setting of resistor R213.
[b] Depends on setting of resistor R203.

c. Oscillator and Rectifier Voltage and Resistance Chart. Make all measurements between the indicated terminal and ground with the ME-26(*)/U.

Name of part	Measure at terminal	Dc volts ±10%	Resistance (ohms) ±10%
Rf oscillator tube V205 ----------------	1	-34	5,100
	2	+.62	13.5
	3	+17	220
	4	+17	220
	5	+286	507K
	6	+286	507K
	7	-34	5,100

Name of part	Measure at terminal	Dc volts ±10%	Resistance (ohms) ±10%
Rectifier tube V206 --------------------	1	+273 (vac)	70
	2		
	3	+17	220
	4	+17	220
	5		
	6	+273	70
	7	+310	507K
Rectifier tube V207 --------------------	1	+273 (vac)	70
	2		
	3	+17	220
	4	+17	220
	5		
	6	+273 (vac)	70
	7	+310	507K

d. Transformer and Inductor Resistance Chart. Measure all resistances with the ME-26(*)/U. All measurements are ±10 percent unless otherwise noted.

Name of part	Measure between terminals	Resistance (ohms)
Preamplifier input transformer T51.	1 and 2	0.25
	3 and 4	2.85K
Record-reproduce head PU51.	Leads	1.8 (±0.4)
Magnetic erase head PU52	Leads	1.9
Output transformer T201	1 and 3	825 (±20%)
	4 and 6	1
Power transformer T202	1 and 2	4.3 (±20%)
	3 and 5	130 (±20%)
	6 and 8	0.12 (±20%)

33. Projector Performance Checks

a. General. The rf power supply for the exciter lamp is located in the projector amplifier. Before troubleshooting the projector, make sure that the amplifier is operating properly. Measure all voltages with 118-volt ac input to the projector.

b. Projector Voltages. Connect the projector for operation (TM 11-6730-210-10) and use the ME-26(*)/U to measure the voltages at the points indicated in the chart below.

Name of part	Measure between terminals	Ac voltage (± 10%)
Threading lamp socket XDS101.	1-2	118
Panel lamp socket XDS102.	1-2	118
Projection lamp socket XDS103.	Not marked	118
Filter FL101 ----------	3-4	118
Drive motor connector J106 (with projector in forward operation).	1-2	20
	4-6	34
	7-8	66
Power connector J103 --	1-3	118

34. Localizing Projector Troubles

Trouble in the projector may be localized to the motors (*a* below), the intermittent mechanism (*b* below), the projection optical system (*c* below), the sound optical system (*d* below), and the magnetic sound mechanism.

a. Checking Drive Motor and Ventilation Motor.

(1) Place amplifier power switch S203 (fig. 97) in the ON position and allow the amplifier to warm up.

(2) Place OFF-MOTOR-LAMP switch S103 (fig. 96) in the MOTOR position. The drive motor and the ventilation motor should operate. If either motor does not operate, or if any of the symptoms listed in paragraph 25 are noticed, immediately turn switch S103 to the OFF position and determine the cause.

(3) If the ventilation motor operates, but the drive motor does not, remove the amplifier section (para 48) and disconnect the mechanism drive chain from the motor. Place OFF-MOTOR-LAMP switch S103 in the MOTOR position and check

the drive motor speed with Electronic Tachometer TS-806/U. If the drive motor speed is 5,550 revolutions per minute (rpm), stalling is caused by binding in the projector mechanism. If the drive motor does not operate at all, check the motor governor, the brushes, and the wiring. If the drive motor operates, but does not attain proper speed even though the governor, the brushes, and the wiring have been determined to be in good condition, repair the drive motor (para 71). Drive motor and ventilation motor brushes are accessible without removing the motor from the projector (fig. 14).

(4) If the drive motor operates, but the ventilation motor does not, check the brushes of the ventilation motor (fig. 14). If the ventilation motor still does not operate, repair it (para 73).

b. Checking Intermittent Mechanism.

(1) With the drive motor reinstalled and the mechanism drive chain engaged, detach both belts from the reel arm pulleys and thread a test film loop through the projector.

(2) Place OFF-MOTOR-LAMP switch S103 in the MOTOR position and watch the film advance through the mechanism. If the picture mechanism jams or freezes, loses loops, causes picture jump, travel ghost, is noisy, tears or otherwise damages the film, place switch S103 in the OFF position and refer to paragraph 23.

c. Checking Projection Optical System (fig. 96).

(1) Place OFF-MOTOR-LAMP switch S103 in the LAMP position. If lamp DS103 fails to light, examine the lamp, the lampholder, switch S103, and interconnecting wiring for defects.

(2) Thread and operate the projector with a reel of defect-free film (TM 11-6730-210-10). If the brightness of the projected image is insufficient or uneven, replace lamp DS103. If lamp replacement fails to remedy the situation, repair or replace the reflector (para 51) and the condenser lens assembly (para 65).

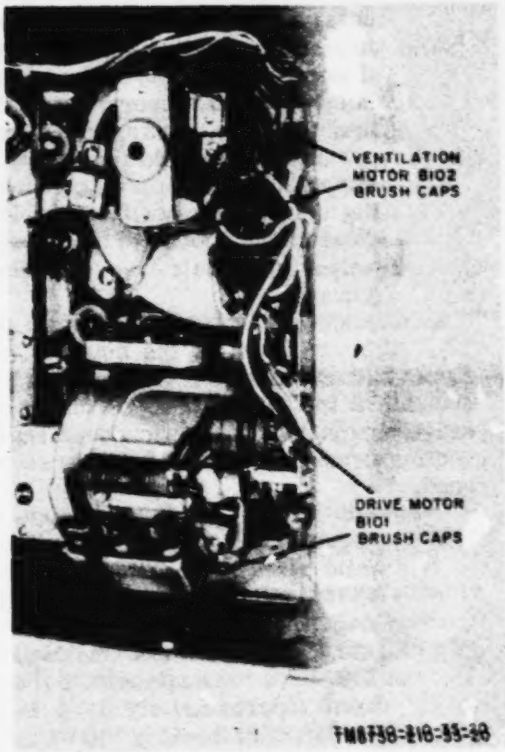


Figure 14. Drive motor B101 and ventilation motor B102, brush location.

d. Checking Sound Optical System.

(1) Place amplifier power switch S202 (fig. 97) in the ON position and allow the amplifier to warm up for 1 minute. Press the projector OPTICAL button fully in and turn VOLUME control R213 to midpositon.

(2) Insert a clean card or heavy paper between the scanning lens and the light pipe prism and move the card back and forth to interrupt the light beam from the scanning lens to the photoelectric cell. If the sound optical system is operating satisfactorily, a thumping sound will be heard from the speaker.

(3) If a thumping sound is not heard,

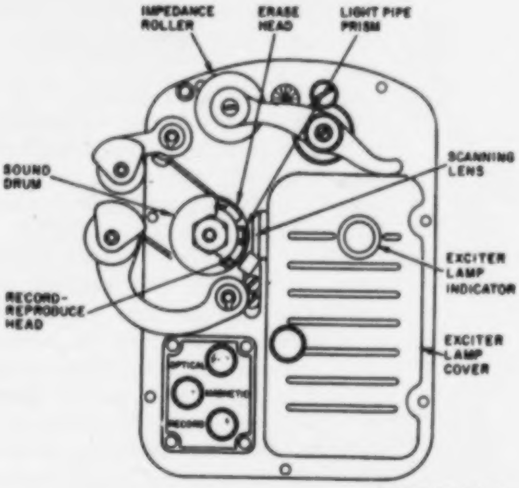
observe the exciter lamp indicator to see if the exciter lamp is lighted. If necessary, remove the exciter lamp cover and observe the exciter lamp directly. If the exciter lamp is not lighted, check the lamp, the lamp socket, and the interconnecting wiring for possible trouble. If these items appear to be operating properly, repair the soundhead (para 75).

e. Checking Magnetic Sound System (fig. 15). After a check of the sound optical system (*d* above) has determined that the soundhead to the amplifier circuit is operating properly, magnetic sound reproduction troubles are localized to the soundhead.

(1) Use a flashlight to illuminate the magnetic heads and watch carefully while setting the OPTICAL MAGNETIC RECORD switch to the MAGNETIC positon. The record-reproduce head should rise noticeably above the surface of the sound drum (approximately 1/64 inch). Set OPTICAL MAGNETIC switch to the RECORD position and note that the erase head also rises above the surface of the drum. If either head fails to rise, repair the soundhead (para 75).

(2) Thread the projector with a loop of 400-cycle magnetic stripe test film. With amplifier power switch S202 ON and VOLUME control R213 at midposition, advance the film across the sound drum by turning the THREADING KNOB. If the magnetic sound system is operating properly, a sound varying from a growl to a high-pitched squeal (depending on the speed at which the film passes the drum) will be heard in the speaker.

(3) If no sound is heard, the trouble is probably in the preamplifier circuit, and repair procedures (para 75) are required. If the report accompanying the projector indicates that magentic sound reproduction has been growing progressively weaker, the probability is that the erase head and the record-reproduce head are becoming worn and are in need of replacement (para 78). Replace the complete stabilizer housing with the heads and the quills assembled. Do not attempt to replace the heads individually.



TM6730-210-35-21

Figure 15. Soundhead, showing components under sound drum.

Section III. TROUBLESHOOTING MIXER-AMPLIFIER

35. Special Dummy Load (fig. 16)

A special dummy load is required for checking the mixer-amplifier under simulated load conditions. Bell and Howell part No. 091699 or equivalent must be used. A schematic diagram of the dummy load is shown in figure 16.

36. General Checks

When mixer-amplifier ON-OFF switch S301 is place in the ON positon, check for

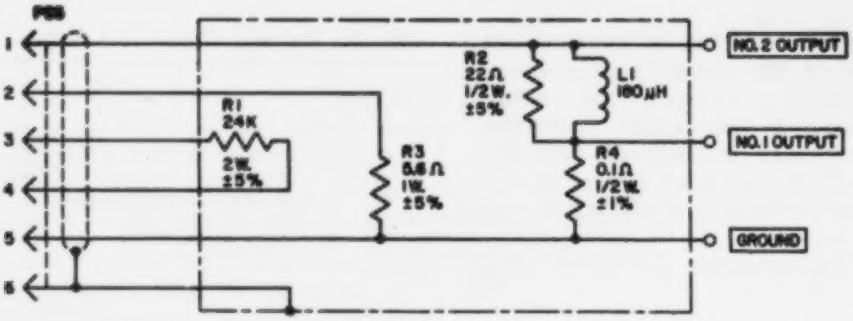


Figure 16. Special dummy load, schematic diagram.

any of the symptoms listed in *a*, *b*, or *c* below. If any of the symptoms are noted, immediately place switch S301 in the OFF position. Refer to paragraphs 38 through 43 for instructions on detecting the source of trouble.

a. Smoke rising from the amplifier.

b. Excessive heating of transformers, filter capacitors, or interconnecting cables.

c. Sound of arcing or burning.

37. Mixer-Amplifier Performance Checks

a. General. The mixer-amplifier components can be checked independently for adequate performance capabilities. Use the trouble localizing procedures outlined in paragraphs 38 through 43 to isolate and correct amplifier troubles and observe the special precautions listed in *b* below.

b. Special Precautions. When making performance checks, the following points must be observed:

(1) Use Voltmeter ME-26(*)/U for all dc measurements.
(2) Make voltage and resistance measurements between the indicated point and ground.
(3) Make measurements of input signal voltages carefully. Avoid parasitic pickup, such as hum, that will cause erroneous readings.
(4) Provide common ground for test equipment and the mixer-amplifier when making electrical measurements.
(5) Make tube voltage measurements with correctly functioning tubes. If in doubt, test all tubes before making such measurements.

38. Localizing Mixer-Amplifier Troubles

The operation of the mixer-amplifier depends on four interdependent current paths. The current paths and the paragraphs giving localizing procedures are listed below. The amplifier will operate properly only if all the voltages along these paths are correct. The proper operation of each path depends on the preceding one, in the order listed.

a. Ac power stage (para 39).
b. Dc power supply (para 40).
c. Rf power supply (para 41).
d. Af signal circuit (para 42).

39. Ac Power Stage, Mixer-Amplifier

a. Localizing Trouble.

(1) Measure the tube voltages (fig. 19).
(2) Measure the power transformer voltages (*b* below).
(3) If the voltages at power transformer T304 are correct, but the filament voltage of a tube is incorrect, check the wiring and tube socket connections. If the input voltage at terminals 1 and 2 of

transformer T304 is correct, but some of the output voltages are incorrect, replace the transformer. If the output from the transformer is correct, but the voltage at the pilot lamps is incorrect, check the wiring to the pilot lamps.

b. Power Transformer T304 (fig. 17), Voltage Chart.

Measure between terminals	Ac voltage (± 10%)
1-2	118
3-GND	275
4-GND	0
5-GND	275
6-GND	3. 15
7-GND	0
8-GND	3. 15

40. Dc Power Supply, Mixer-Amplifier

a. Localizing Trouble. Use the ME-26 (*)/U for making the voltage measurements indicated in *b* below. The test points are located on the mixer-amplifier terminal board (fig. 20).

(1) Measure the voltage test point 1. If the voltage is not as indicated in the chart (*b* below), proceed as indicated in (2) below. If the voltage is correct, proceed as indicated in (3) below.

(2) Check capacitors C301(5A) and C301(7A) for shorts and check resistor R349 for possible change in value. A filter capacitor may have a high resistance reading and still break down under operating conditions. If a leaky filter capacitor is suspected, unsolder one lead and connect a good capacitor in its place.

(3) Measure the voltage at test point 2. If the voltage is not as indicated in the chart (*b* below), check the value of resistor R346. Measure the voltage at test point 3; if this voltage is not as indicated in the chart (*b* below), check resistor R345 and capacitors C302(3B) and C302(5B). Replace if defective.

b. Dc Voltage Chart (fig. 20).

Test point	Name of part	Dc voltage (± 10%)
1	Capacitor C301(5A) and C301(7A).	+310
2	Capacitor C302(7B) ---	+280
3	Capacitor C302(3B) and C302(5B).	+240

c. Resistance Chart. Disconnect the equipment from the power source and measure all resistances with the ME-26 (*)/U.

Name of part	Measure between terminals	Resistance (ohms) (± 10%)
Input transformers T301 and T302.	1 and 3	15. 3
	4 and 6	17. 2
	7 and 8	2. 65K
Output transformer T303	1 and 2	2. 1K
	3 and 4	37. 5
Power transformer T304	1 and 2	9. 2
	3 and 4	250
	4 and 5	250
	6 and 7	Less than 1
	7 and 8	Less than 1
Oscillator coil L301 ----	1 and 3	62. 5
	6 and 7	0. 042
Audio inductor L302 ----	leads	93. 5

41. Rf Power Supply, Mixer-Amplifier

To troubleshoot the rf power supply, proceed as follows:

a. Connect the special dummy load (para 35) to mixer-amplifier receptacle J305.

b. Place mixer-amplifier ON-OFF switch S301 in the ON position.

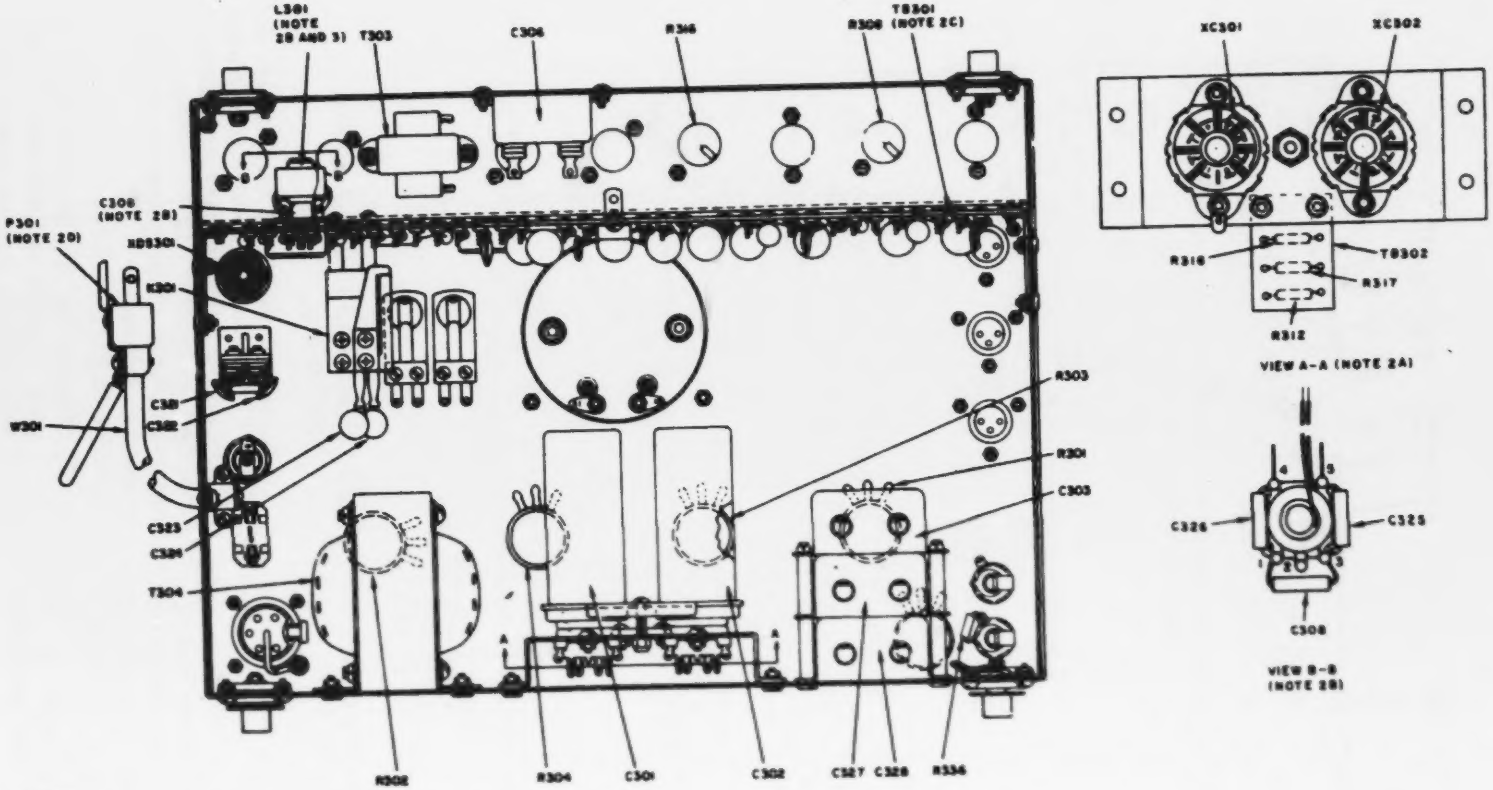
c. Place RECORD-STOP switch S304 in the RECORD position. A click should be heard as relay K301 energizes.

d. If relay K301 does not energize (*c* above), proceed as follows:

(1) Disconnect the dummy load 25K-ohm resistor, and place ON-OFF switch S301 in the OFF position.

(2) Use Multimeter ME-26(*)/U to measure the resistance of the coil of relay K301 with RECORD-STOP switch S304 in the RECORD position.

(3) If the resistance ((2) above) of the coil of relay K301 is not approximately 25K-ohms, replace relay K301.



NOTES:
1. PREFIX REFERENCE DESIGNATORS WITH A2A1 UNLESS OTHERWISE SPECIFIED.
2. PREFIX REFERENCE DESIGNATORS AS FOLLOWS:
   A. A2A1A4
   B. A2A1A11
   C. A2A1A5
   D. A2A1W301
3. PART OF RF TRANSFORMER ASSEMBLY A2A1A11.

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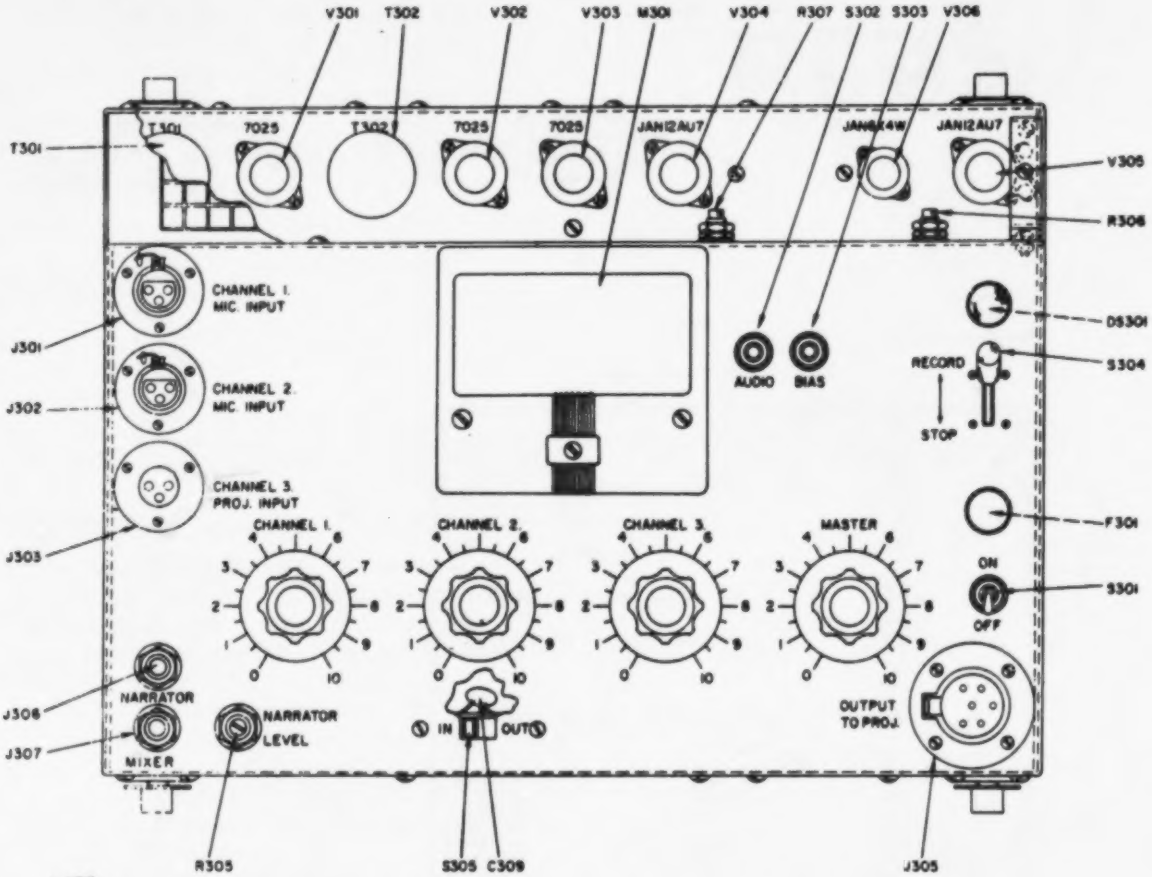
Figure 17. Mixer-amplifier parts location, rear view.



NOTE:
PREFIX REFERENCE DESIGNATORS WITH A2A1.

EL6730-210-35-C3-TM-23

Figure 18. Mixer-amplifier parts location, front view.

e. If relay K301 energizes but does not lock in, check the relay and clean dirty contacts. Check the relay wiring and repair or replace any wiring that appears defective.

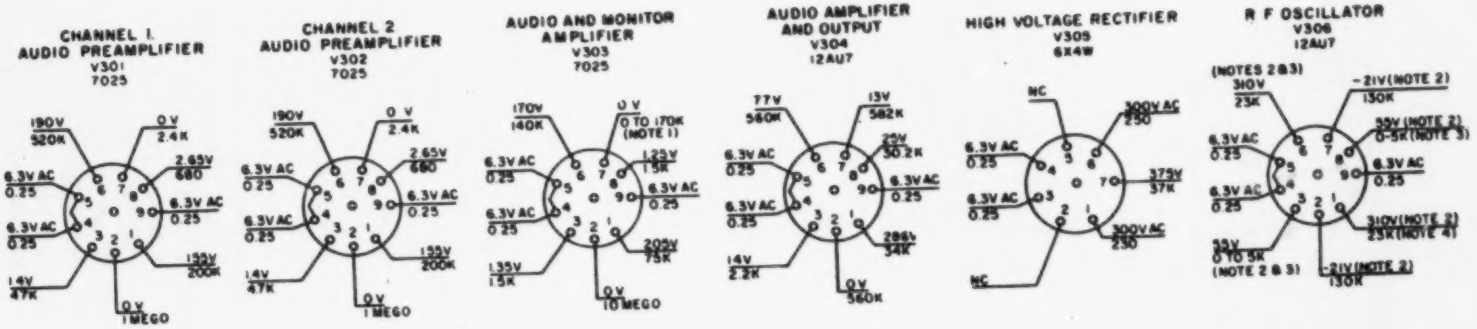
f. Use the ME-30(*)/U to measure the voltage across the special dummy load NO. 1 OUTPUT and GROUND. Approximately 0.0042 volt should be present. If the voltage is incorrect, check the tube resistances and voltages (fig. 19). Disconnect the power source from the equipment and use the ME-26(*)/U to make the resistance measurements.

42. Af Signal Circuit, Mixer-Amplifier (fig. 21)

To check the af signal circuit, use the TS-382(*)/U and the ME-30(*)/U, connect the special dummy load (para 35) to mixer-amplifier connector J305, connect the mixer-amplifier to the power source, and proceed as follows:

a. CHANNEL 1.

(1) Connect the TS-382(*)/U leads to pins 1 and 2 of CHANNEL 1 connector J301. Jumper pins 1 and 3. Turn CHANNEL 1 gain control


CHANNEL 1
AUDIO PREAMPLIFIER
V301
7025

CHANNEL 2
AUDIO PREAMPLIFIER
V302
7025

AUDIO AND MONITOR
AMPLIFIER
V303
7025

AUDIO AMPLIFIER
AND OUTPUT
V304
12AU7

HIGH VOLTAGE RECTIFIER
V305
6X4W

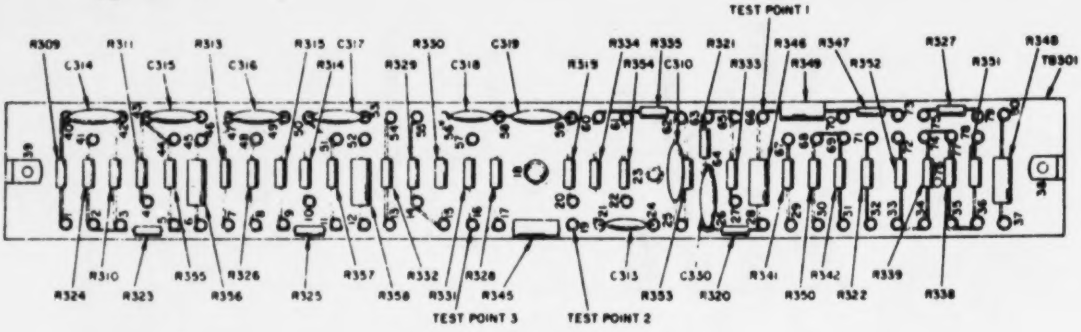
R F OSCILLATOR
V306
12AU7

NOTES

1. RESISTANCE VALUE DEPENDS ON THE SETTINGS OF A2A1R301 THROUGH A2A1R304.
2. VOLTAGE MEASURED WITH A2A1S304 IN RECORD POSITION.
3. RESISTANCE VALUE DEPENDS ON THE SETTING OF A2A1R306.
4. RESISTANCE VALUE IN PARENTHESES OBTAINED WITH A2A1K301 MANUALLY OPERATED.
5. MEASURE ALL AC VOLTS WITH VOLTMETER ME-30/U; ALL DC VOLTS WITH MULTIMETER ME-26/U.
6. ALL VOLTAGES PLUS DC UNLESS OTHERWISE NOTED.
7. FILAMENT VOLTAGES MEASURED ACROSS TUBE PINS.
8. PREFIX REFERENCE DESIGNATORS WITH A2A1.

EL6730-210-35-C3-TM-26

Figure 19. Mixer-amplifier A2 *tube sockets, voltage and resistance diagram.*



NOTE:
PREFIX REFERENCE DESIGNATORS
WITH A2A1A5

EL6730-210-35-C3-TM-25

Figure 20. Mixer-amplifier terminal board, **TB301.**

R301, CHANNEL 2 gain control R303, and CHANNEL 3 gain control R304 fully counterclockwise.

(2) Turn MASTER gain control R302 fully clockwise. Operate ON-OFF switch S301 to the ON position.

(3) Adjust the TS-382(*)/U for a 500-microvolt, 1,000-cps output.

(4) Adjust CHANNEL 1 gain control R301 to obtain a zero reading on the volume-unit meter.

(5) Place RECORD-STOP switch S304 in the RECORD position and measure the af voltage between ground and the following points on audio preamplifier tube V301:

Pin	Af voltage (± 10%)
1	1.20
2	0.050
6	0.050
7	0.0025

b. CHANNEL 2.

(1) Connect the TS-382(*)/U leads to pins 1 and 2 of CHANNEL 2 connector J302. Jumper pins 1 and 3.

(2) Turn CHANNEL 1 gain control R301, CHANNEL 2 gain control R303, and CHANNEL 3 gain control R304 fully counterclockwise.

(3) Turn MASTER gain control R302 fully clockwise. Operate ON-OFF switch S301 to the ON position.

(4) Adjust the TS-382(*)/U for a 500-microvolt, 1,000-cps output.

(5) Adjust CHANNEL 2 gain control R303 to obtain a zero reading on the volume-unit meter.

(6) Place RECORD-STOP switch S304 in the RECORD position and measure the af voltage between ground and the following points on audio preamplifier tube V302:

Pin	Af voltage (± 10%)
1	1.20
2	0.050
6	0.050
7	0.0025

c. CHANNEL 3.

(1) Connect the TS-382(*)/U leads to pins 1 and 2 of CHANNEL 3 connector J303.

(2) Turn CHANNEL 1 gain control R301, CHANNEL 2 gain control R303, and CHANNEL 3 gain control R304 fully counterclockwise.

(3) Turn MASTER gain control R302 fully clockwise. Operate ON-OFF switch S301 to the ON position.

(4) Adjust the TS-382(*)/U for a 1-volt, 1,000-cps output.

(5) Adjust CHANNEL 3 gain control to obtain a reading of zero on the volume-unit meter.

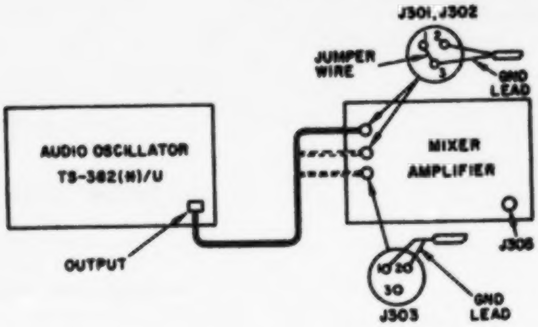
(6) Place RECORD-STOP switch S304 in the RECORD position and measure the af voltage between ground and the following points:

Item	Pin	Af voltage (± 10%)
Audio amplifier and monitor amplifier tube V303.	1	2.65
	2	0.45
	6	0.45
	7	0.015
Audio amplifier and audio output tube V304.	1	2.65
	2	0.66
	6	0.66
	7	0.45
Output transformer T303	3	0.28

43. Function Control Circuit
(fig. 98)

Trouble in the function control circuit normally will involve RECORD-STOP switch S304, interlock relay K301, record-reproduce relay K101 in the projector, and associated wiring between these components. Connect the projection set for recording (TM 11-6730-210-10) and check the control circuit as follows:

a. Momemtarily move RECORD-STOP switch S304 to the RECORD position while listening for an audible *click* from relay K101 in the projector and from relay K301 in the mixer-amplifier as the relay coils are energized. Relay K101 should energize slightly before relay K301.



TM6730-210-35-27

Figure 21. Mixer-amplifier audio output measurements, connection diagram.

b. If neither relay energizes, check the following for defects:

(1) RECORD-STOP switch S304.
(2) OFF-MOTOR-LAMP switch S103.
(3) REWIND switch S105.
(4) Recording cable

c. If both relays energize momentarily but then deenergize, check for dirty contacts in relay K301. Clean dirty contacts with crocus cloth.

d. If relay K301 energizes before relay K101, check capacitors C327 and C328 and resistor R347; check the contacts of relay K101 for dirt and clean if necessary.

CHAPTER 4

REPAIRS AND ALIGNMENT

Section I. PROJECTOR DISASSEMBLY

44. Parts Replacement Techniques, Projector

Most of the parts in Projection Set, Motion Picture AS-7A can be reached easily and replaced without special procedures. The following precautions apply:

a. Use a bearing puller or press to remove bearings. Do not force out by pounding.

b. When removing the prewired components or wiring harnesses, make a careful note of the solder points and the manner in which the leads are dressed within the projector case.

c. If it is necessary to remove riveted parts, drill out the old rivet with a drill equal to, or slightly smaller than, the diameter of the rivet being removed. Always support the part to be riveted solidly to prevent distortion of parts during the riveting process.

d. When making repairs near the soundhead, be extremely careful not to damage the sound drum.

e. Do not use a metal tool to scrape away hardened film emulsion from parts which contact the film. Follow the cleaning instructions (para 90*b*).

f. When soldering feedthrough capacitors, avoid overheating the glass portion of the capacitor. Use a heat sink or grasp the central lead with a pair of pliers between the glass bead and the eye of the terminal before applying heat. If the soldering iron must be used with alternating current (ac), use an isolating transformer between the iron and the line.

45. Special Projector Gages
(fig. 22)

Special gages are required for adjusting and aligning the projector. The special gages are contained in Tool Kit, Photographic Repair TK-116/GF.

46. Disconnecting Projector Set Components

a. Wiring. When removing projector set components, mark each wire before disconnecting. Wiring connections are shown in the wiring diagrams (figs. 96, 97, and 98).

b. Connections (fig. 23). Cable connections between the projector and the projector-amplifier are shown in figure 23.

46.1 Reference Designations

a. To aid in parts requisition, reference designators have been assigned to all projector parts. These reference designators are shown in the illustrations supporting this manual and are cross-indexed in appendix B.

b. To make the manual easier to read, reference designation prefixes have been omitted from the text. Refer to the supporting illustrations in the text to obtain complete reference designations.

47. Considerations Before Disassembly

Sectionalization of troubles in the projector can simplify repairs by limiting the disassembly to the defective area. Repairs often can be made by the disassembly of specific subassemblies or of certain parts which operate as a group to perform specific functions. The following chart lists those units which can be removed and repaired without major disassembly, and references paragraphs where detailed repair instructions will be found.

Repairable unit	Paragraph references			
	Removal	Disassembly	Reassembly	Replacement
Projector-amplifier	48	84	94	130
Aperture plate	50*b*	63*a*	115*a*	128*a*
Condenser lens	51*b*	65	113	127*b*
Counter drive mechanism	60	69	109	118
Film sprockets and shoes	64	...	...	114
Shuttle and cams	...	66	112	...
Lampholder	51*a*	...	...	127*a*
Lamp reflector	51*c*	51*c*	127*c*	127*c*
Lens mounting	54	80	98	124
Drive motor	55	71, 72	106, 107	123
Ventilation motor	56	73	105	122
Pressure plate	50*a*	63*b*	115*b*	128*b*
Projector legs	53	68	110	125
Takeup and rewind pulleys	81*c*	82	96	97*n*
Relay K101	57	74	104	121
Feed reel arm	...	61	117	...
Takeup reel arm	...	62	116	...
Rollers	52	...	...	126
Soundhead	58	75	99–103	120
Switchplate	49	70	108	129
Tilting mechanism	59	67	111	119

48. Removal of Projector-Amplifier
(fig. 24)

a. Remove the machine screws (1) and the lockwashers (2) that secure the rear edge of the switchplate (19) to the amplifier and speaker (5).

b. Remove the screws (3) and the lockwashers (4) that fasten the amplifier chassis to the projector case.

c. Pull the amplifier and speaker away from the projector case just far enough to gain access to the cable connectors. Disconnect male plug connector P201 (20) from female plug connector P104 (21); disconnect octal plug connector P55 (22) from connector J205 on the projector amplifier; disconnect jack plug connector P54 (23) from connector J204 (29).

d. Refer to paragraph 84 for amplifier disassembly instructions.

49. Remove of Switchplate
(fig. 24)

To remove switchplate assembly A13 or filter assembly FL101, remove the amplifier (para 48), and proceed as follows:

a. Remove the machine screws (6) and the lockwashers (7) that fasten the junction box plate (8) to filter FL101 (18).

b. Remove the screws (11) and (12), the self-locking nuts (13), and the cable clamp (14); and then remove the machine screw (15), the hexagonal nut (16), and the lockwasher (17) to free the filter.

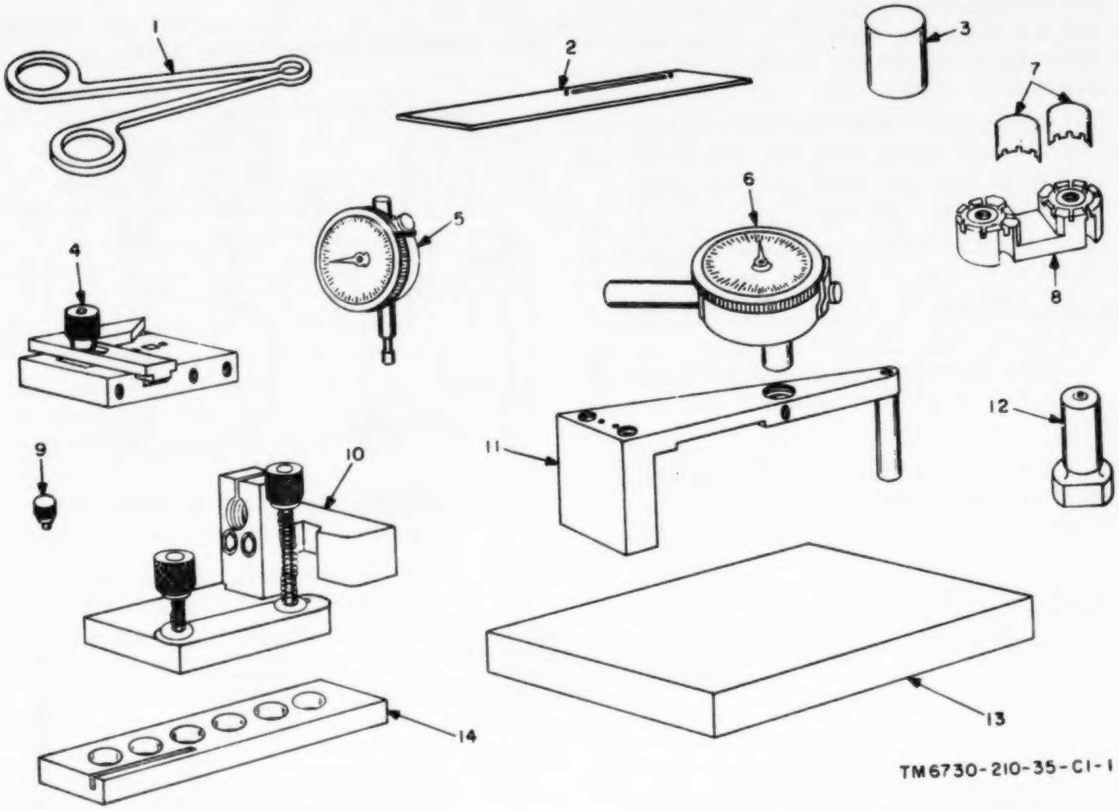
c. Mark and unsolder the filter leads (24) from the rear of the receptacle connector (25). Mark and unsolder the wire leads (26) from the lampholder just behind the receptacle connector (25). Trace the wire leads from the projection lamp socket to the screw terminals of the OFF–MOTOR–LAMP switch (27), and mark and disconnect these leads. Mark and disconnect the two ventilation motor leads from the terminals of the OFF–MOTOR–LAMP switch (27) and the ON–OFF switch (28).

d. Remove the machine screws (9) and the lockwashers (10) that fasten the switchplate (19) to the projector case.

e. Refer to paragraph 70 for switchplate disassembly instructions.

50. Removal of Aperture Plate and Pressure Plate
(fig. 25)

a. Pressure Plate. Pull out the film gate release knob (1) to open the film gate. Grasp



1 Sound track gage
2 Aperture and shuttle tooth gage
3 Master height gage
4 Intermittent synchronizing gage
5 Shuttle tooth protrusion meter
6 Camshaft height gage meter
7 Film clearance gage
8 Sprocket and shuttle synchronizer gage
9 Intermittent synchronizing gage locking nut
10 Shuttle tooth protrusion test fixture
11 Camshaft height gage bridge
12 Soundhead gage
12 Surface plate
14 Shuttle tooth protrusion gage

Figure 22. Special projector gages.

the handle of the pressure plate (3) and pull it straight out from the lens mounting (52). Refer to paragraph 63*b* for disassembly of the pressure plate.

b. Aperture Plate. Grasp the curved handle at the top of the aperture plate (2) and pull the aperture plate straight up until it can be tilted forward and disengaged from the aperture plate mounting studs. Refer to paragraph 63*a* for aperture plate diassembly instructions.

51. Removal of Projection Optical System
(fig. 25)

a. Projection Lamp and Lampholder. Remove the projection lamp and lampholder as follows:

(1) Swing open the lamp house cover (5) and lift it from its hinges.

(2) Press down on the projection lamp (6) and twist it counterclockwise to remove it from the lamp socket (13).

(3) Remove the machine screw (7) and

the lockwashers (8) that hold the lamp bracket (9) to the projector mechanism plate, and withdraw the lamp bracket to the limit of the wire leads.

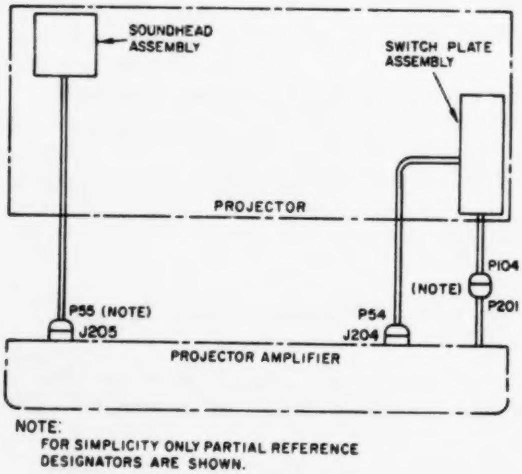
(4) Remove the machine screws (12) and separate the lamp socket (13) from the lamp bracket; mark and disconnect the wire leads from the lamp socket terminals.

(5) If the lamp focusing levers (10) or the adjusting sleeves (11) are in need of replacement, unscrew the levers from the lamp bracket.

(6) Refer to paragraph 127*a* for projection lamp and lampholder assembly instructions.

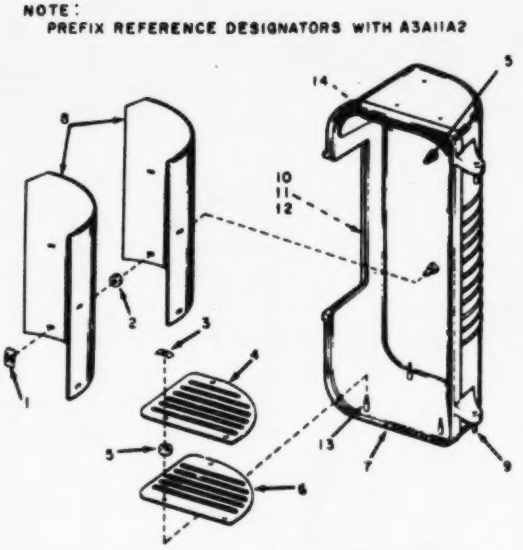
b. Condenser Lens Assembly. To remove the condenser lens assembly (14), remove the projection lamp (*a* above), and proceed as follows:

(1) Grasp the condenser lens assembly (14) so that the thumb of the left hand rests on the release lever at the top of the assembly and the fingers are below the condenser lens housing.



EL6730-210-35-C3-TM-29

Figure 23. Projector and projector-amplifier cable connections.



EL6730-210-35-C3-TM-111

1	Nut H5
2	Spacer H6
3	Nut H2
4	Louver MP3
5	Spacer H3
6	Louver MP4
7	Lamp housing MP2
8	Shields MP8–MP9
9	Pin H1
10	Housing MP1
11	Strike MP7
12	Spring MP11
13	Pin H4
14	Reflector MP10
15	Pin H7

Figure 23.1 Lamp guard assembly, exploded view.

(2) Apply pressure to force the release lever down, and pull the condenser lens assembly straight back until it is free of the mechanism plate.

(3) Refer to paragraph 65 for condenser lens disassembly procedures.

c. Lamp Reflector Assembly. To remove and repair the lamp reflector, swing open the lamp house cover (5) and proceed as follows:

(1) Remove the screws (15) and the lockwashers (16) that attach the lamp reflector (17) to the projector mechanism plate.

(2) Pry out the reflector lockring (18) with a small screwdriver, and separate the reflector from the reflector bracket (20); be careful not to scratch the lamp reflector (19).

(3) Refer to paragraph 90 for reflector

cleaning instructions and to paragraph 127*c* for lamp reflector reassembly instructions.

52. Removal of Guide and Idler Rollers
(fig. 25)

a. Guide Roller and Brackets. Remove and repair the guide roller and brackets as follows:

(1) Remove the machine screws (21), the lockwashers (22), and the flat washers (23) that fasten the guide roller and brackets (24) to the top of the projector case.

(2) Remove the plain hexagonal nuts (25) and the lockwashers (26), and disassemble the roller shaft screws (27) and the film guide rollers (28) from the guide roller bracket (29).

(3) Refer to paragraph 126*a* for assembly to guide roller parts.

b. Idler Rollers. Remove the idler rollers and roller mounting parts as follows:

(1) Remove the machine screws (30) and the film idler rollers (31).

(2) Unscrew the film idler shafts (32) that fasten the film guard (33) to the projector mechanism plate.

(3) Refer to paragraph 126*b* for idler roller reassembly instructions.

53. Removal of Projector Legs
(fig. 25)

Remove the amplifier (para 48). Remove the machine screws (34) and the self-locking nuts (35) that fasten the projector legs (36) and (37) and spacers (38) to the bottom of the projector case. Refer to paragraph 68 for projector leg disassembly instructions.

54. Removal of Lens Holder and Lens Mounting
(fig. 25)

Remove the lens holder and the lens mounting from the projector as follows:

a. Remove the machine screws (39) and the lockwashers (40) that fasten the lens holder stop plate (41) to the front of the lens mounting (52). Rotate the focusing knob until the lens focusing gear rack (45) is disengaged from its mating pinion, and remove the lens holder (42). The lens holder friction button (46) and the conpression spring (47) will jump up from their recess in the lens mounting as the lens holder is removed. Be careful not to lose these parts.

b. Inspect the teeth of the gear rack (45) for damage. If in need of replacement, remove the machine screws (44) and the gear rack (45).

c. Remove the machine screws (49 and 50), and the lockwashers (51) which fasten the lens mounting (52) to the projector mechanism plate.

d. Refer to paragraph 80 for lens mounting disassembly instructions.

55. Removal of Drive Motor
(fig. 26)

To remove the drive motor from the projector, remove the amplifier (para 48), and proceed as follows:

a. Disconnect the drive motor plug connector (35) from the receptacle on the switchplate assembly.

b. Loosen the setscrew (1) and remove the THREADING KNOB (2).

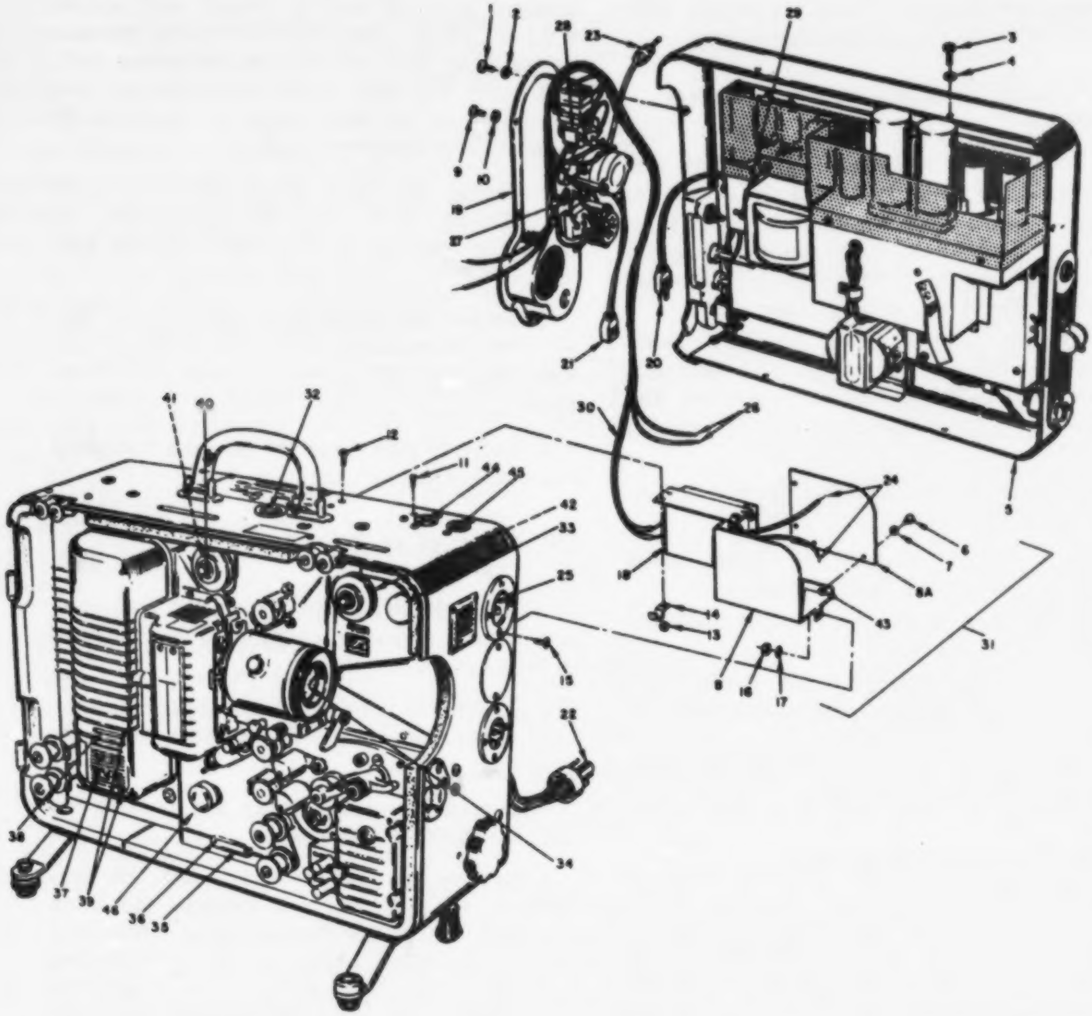
c. Remove the machine screws (3), the lockwashers (4), and the flat washers (5) from the front of the mechanism plate while supporting the drive motor (6) firmly with one hand. Raise the drive motor slightly until the drive chain (7) can be disengaged from the motor sprocket. Remove the drive motor and the drive chain.

d. Refer to paragraph 71 for drive motor disassembly instructions.

56. Removal of Ventilation Motor
(fig. 26)

To remove the ventilation motor from the projector, remove the amplifier (para 48), and proceed as follows:

a. Tag and disconnect the ventilation motor leads (33) at the switchplate assembly.



EL6730-210-35-C3-TM-30

Note. Prefix reference designators with A3.

1	Machine screw H37
2	Lockwasher H38
3	Machine screw H1
4	Lockwasher H2
5	Amplifier A1 and speaker A1LS201
6	Machine screw A12A1H2
7	Lockwasher A12A1H3
8	Junction box A12A1A1
8a	Plate MP17
9	Machine screw H37
10	Lockwasher H38
11	Machine screw A11H1
12	Machine screw A6H1
13	Self-locking nut A1H71
14	Cable clamp MP21
15	Machine screw H16
16	Plain hexagonal nut H15
17	Lockwasher H17
18	Filter A12A1FL101
19	Switchplate A12
20	Plub connector, male P201 (p/o cable assembly A3A1W201)
21	Plug connector, female P104 (p/o cable assembly A3A12W102)
22	Plug connector, octal A11A3W51P55
23	Plug connector, jack A11A3W52W1P54 (p/o cable assembly A3A11A3W52W1
24	Filter leads A3A12A1W1-W2

Figure 24. Projector with amplifier and switchplate removed.

25 Receptacle connector A7J103
26 Lampholder leads
27 OFF-MOTOR-LAMP switch A12S103
28 ON-OFF switch A12S102
29 Connector A1J204
30 Wiring harness A12A12
31 RFI filter assemly A12A1
32 Knob MP13
33 Lamp DS1
34 Projection lens A10
35 Plate MP15
36 Screw H29
37 Plate A11A2MP5
38 Plate A11A2MP6
39 Screw A11A2H8-H9-H10
40 Sprocket A11A5MP41
41 Setscrew A11A5H72
42 Spacer A11A5MP62-MP65
43 Nut A12A1H1
44 Fuse F101 and fuse holder XF101
45 Fuse F102 and fuse holder XF102
46 Plate assembly A11

Figure 24—Continued.

b. Remove the machine screws (8) and the lockwashers (9) which attach the housing cover of the ventilation motor (10) to the mechanism plate, and lift off the motor.

c. Refer to paragraph 73 for ventilation motor disassembly instructions.

57. Removal of Relay K101
(fig. 26)

To remove relay K101 from the projector, remove the amplifier (para 48), and proceed as follows:

a. Remove the machine screws (11) and the lockwashers (12), and move relay K101 (13) to expose the lead connections.

b. Unplug the connector (34) from the connector on the relay box. Mark and unsolder the relay leads from the receptacle connector (36).

c. Refer to paragraph 74 for relay K101 disassembly instructions.

58. Removal of Soundhead
(fig. 26)

To remove the soundhead from the projector, remove the amplifier (para 48) and relay K101 (para 57), and proceed as follows:

a. All soundhead cable connections were disconnected by the removal of the amplifier and relay K101.

b. Remove the flywheel screw (14) and the flywheel (15). Handle the flywheel with care and set it aside in a place where it will be protected from accidental damage.

c. Remove the machine screws (16) and the lockwashers (17) that fasten the mounting plate of the soundhead (18) to the projector mechanism plate. Support the soundhead while withdrawing it from the mechanism plate.

d. Refer to paragraph 75 for soundhead disassembly instructions.

59. Removal of Tilting Mechanism
(fig. 26)

To remove the tilting mechanism from the projector, remove the amplifier (para 48), relay K101 (para 57), and the soundhead (para 58), and proceed as follows:

a. Drive out the spring pin (19) and remove the elevation knob (20) from the tilting mechanism.

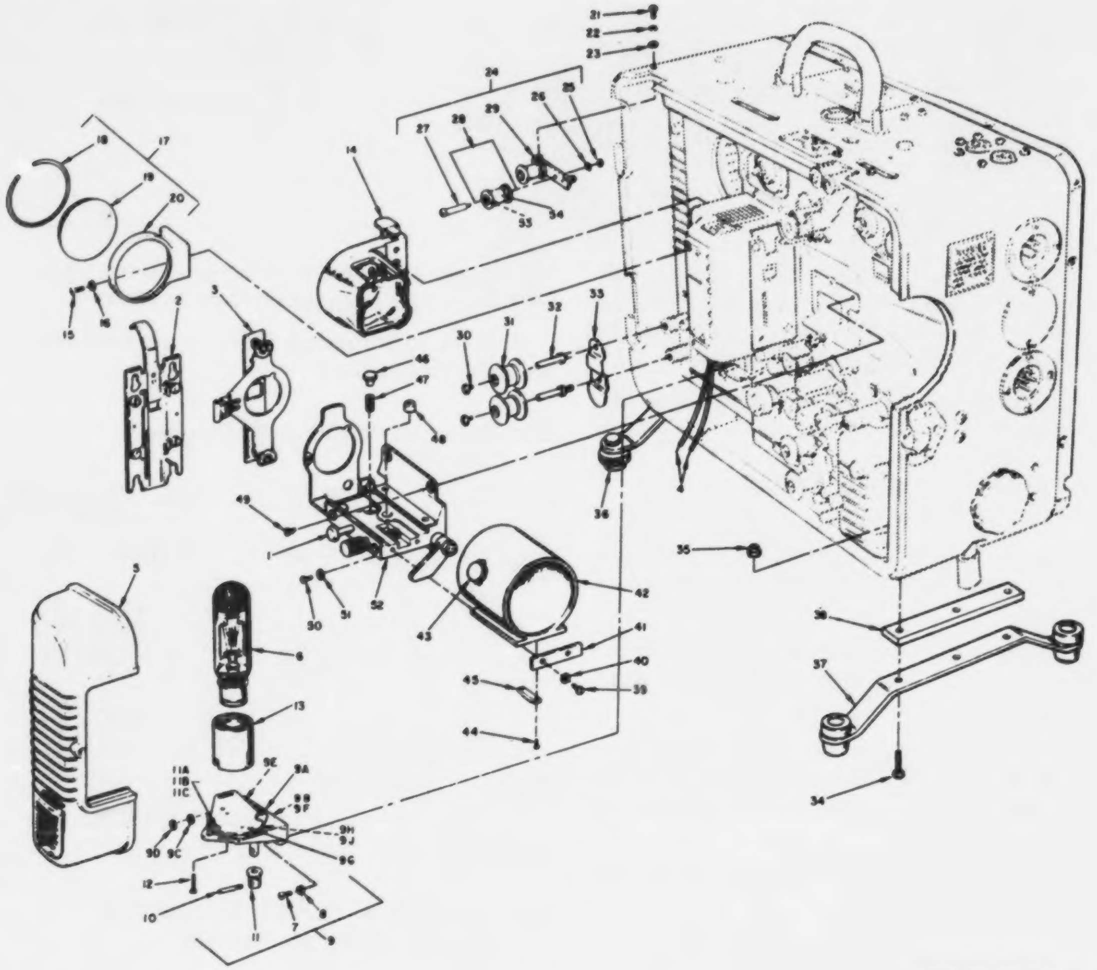
b. Remove the machine screws (21) and self-locking nuts (22), and lift the tilting mechanism (23) up and out of the projector case.

c. Refer to paragraph 67 for tilting mechanism disassembly instructions.

60. Removal of HOURS Counter and Counter Drive Mechanism
(fig. 26)

To remove the HOURS counter and the counter drive mechanism from the projector, remove the amplifier (para 48) and the switchplate and filter (para 49*b*), and proceed as follows:

a. Remove the machine screws (24) and the lockwashers (25) that fasten the HOURS counter (26) to the projector mechanism plate. The counter drive arm (28) is secured to the counter shaft with a machine screw (27). Unless replacement is necessary, do not remove the counter drive arm from the counter because the arm must be carefully aligned when assembled.



EL6730-210-35-C3-TM-31

Note. Prefix reference designators with A3.

1	Film gate release knob A11A5A22MP3
2	Aperture plate A11A5A25
3	Pressure plate A11A5A26
4	Projection lamp leads
5	Lamp house cover A11A2
6	Projection lamp DS103
7	Machine screw H8
8	Lockwasher H9
9	Lamp bracket assembly A5
9A	Lamp bracket A5MP1
9B	Plate A5A1
9C	Washer A5A1H2
9D	Washer A5A1H3
9E	Shaft assembly A5A3
9F	Shaft assembly A5A2
9G	Stud A5A1H1
9H	Plate A5A1MP1
9J	Plate A5A1MP2
10	Lamp focusing lever A5MP4-5
11	Adjusting sleeve A5MP2-3
11A	Stud A5H1
11B	Washer A5H2
11C	Washer A5H3
12	Machine screw H25
13	Lamp socket XDS103
14	Condenser lens assembly A11A5A20
15	Machine screw A11A6H8
16	Lockwasher A11A6H9
17	Lamp reflector assembly A11A6MP7
18	Reflector lockring A11A6MP7MP1
19	Lamp reflector A11A6MP7MP2
20	Reflector bracket A11A6MP7MP3
21	Machine screw A6H14
22	Lockwasher A6H16
23	Flat washer, special A6H15
24	Guide roller and bracket A6A7-A8
25	Plain hexagonal nut, steel 4-36 A6A7H1
26	Lockwasher A6A7H2
27	Roller shaft screw A6A7MP2-3
28	Film guide roller assembly A6A7A1-A2
29	Guide roller bracket A6A7MP1
30	Machine screw, special A11A6H10

Figure 25. Projector, front components, exploded view.

31 Film idler roller A11A6A1
32 Film idler shaft A11A6MP8-9
33 Film guard A11A6MP2
34 Machine screw A6H21
35 Self-locking nut A6H20
36 Projector leg, rear A6A4
37 Projector leg, front A6A5
38 Leg spacer A6MP14
39 Machine screw A11A5H44
40 Lockwasher A11A5H45
41 Lens holder stop plate A11A5H43
42 Lens holder A11A5A17MP2
43 Lens lock screw A11A5A17A1
44 Machine screw A11A5A17H1
45 Lens focusing gear rack A11A5A17MP1
46 Lens holder friction button A11A5MP7
47 Compression spring A11A5MP34
48 Release rod guide disk A11A5MP30
49 Machine screw A11A5H52
50 Machine screw A11A5H52
51 Lockwasher A11A5H53
52 Lens mounting A11A5A22MP5
53 Bearing A7A1MP1-MP2
54 Roller A7A1MP3

Figure 25—Continued.

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b. Remove the machine screws (29) and the lockwashers (30) that fasten the counter drive mechanism (31) to the special mounting studs (32), and lift out the counter drive mechanism.

c. Refer to paragraph 69 for counter drive mechanism disassembly instructions.

61. Feed Reel Arm Disassembly
(fig. 27)

a. Remove the capnut (3), the spindle tension nut (4), and the spindle tension spring (5).

b. Drive out the spring pin (6) and disassemble the spindle assembly (2), the clutch (7), the clutch plate (8), the thrust washers (10), the feed spindle pulley (11), and the friction washer (12) from the feed reel arm (15).

c. Inspect the bearings (9 and 13) visually for signs of excessive wear or rough rotation. If necessary to replace the bearings, press them from the clutch plate and the feed reel arm.

d. Refer to paragraph 117 for feed reel arm reassembly instructions.

62. Takeup Reel Army Disassembly
(fig. 28)

a. Remove the capnut (3), the spindle tension nut (4), and the spindle tension spring (5).

b. Drive out the spring pin (6) and disassemble the spindle (2), the spindle tension plate (7), the thrust washer (9), the takeup spindle pulley (10), and the friction washer (11) from the takeup reel arm (14).

c. Inspect the bearings (8 and 13) visually for signs of excessive wear or rough rotation. If necessary to replace the bearings, press them from the takeup reel arm. The dowel pin (12) need not be removed.

d. Refer to paragraph 116 for takeup reel arm reassembly instructions.

63. Aperture and Pressure Plate Disassembly

*a. Aperture Plate Disassembly (*fig. 29).

(1) Remove the screws (2) and the fixed film rail (1) from the aperture plate (7).

(2) Remove the screws (4), the floating film rail (3), and the side tension spring (5). The flat washers (6) will drop free when the floating film rail is removed.

(3) Refer to paragraph 115*a* for aperture plate reassembly instructions.

b. Pressure Plate Disassembly (fig. 30).

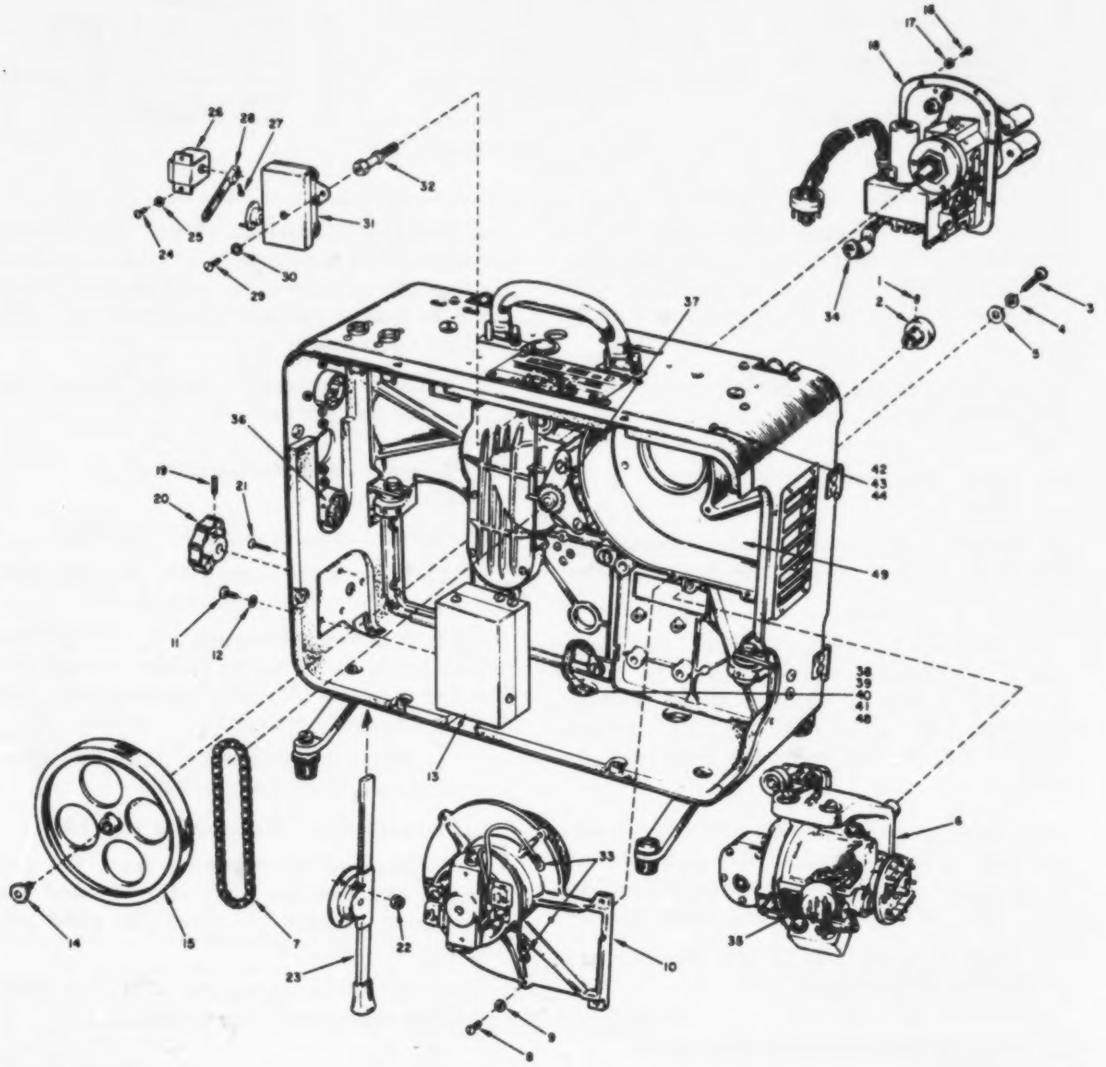
(1) Remove the retaining rings (2) and separate the pressure plate clip (1) and the compression springs (3) from the plate and stud assembly (4).

(2) Refer to paragraph 115*b* for pressure plate reassembly instructions.

64. Film Sprocket and Associated Items Disassembly

To remove the film strippers (*a* below), the film sprockets (*b* below), the film stops (*c* below), and the film shoes (*d* below), proceed as follows:

a. Remove the machine screw (1) and the lockwasher (2) that holds the film stripper (3) to the projector mechanism plate.



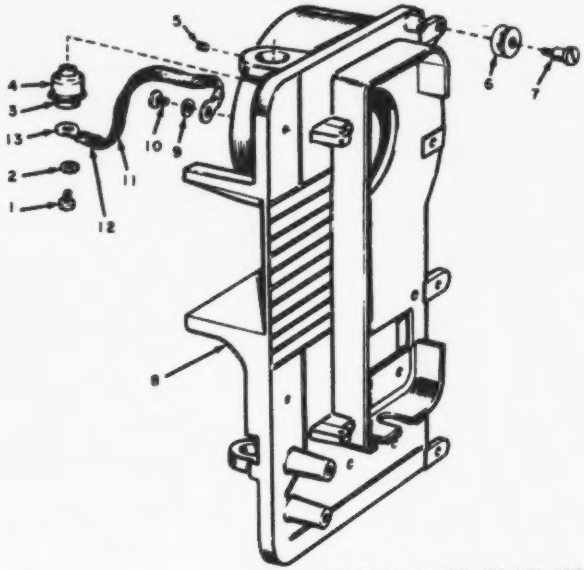
EL6730-210-35-C3-TM-32

Figure 26. Projector, rear components, exploded view.

Note. Prefix reference designators with A3.

1 Setscrew A11H5
2 THREADING KNOB A11MP1
3 Machine screw A11H16
4 Lockwasher A11H18
5 Flat washer, special A11H17
6 Drive motor A11B101
7 Drive chain A11A1
8 Machine screw A11H1
9 Lockwasher A11H2
10 Ventilation motor A11B102
11 Machine screw H32
12 Lockwasher H33
13 Relay K101 assembly A13
14 Flywheel screw H24
15 Stabilizer flywheel MP12
16 Machine screw A11H3
17 Lockwasher A11H4
18 Soundhead A11A3
19 Spring pin A6H10
20 Elevation knob A6MP7
21 Machine screw A6H9
22 Self-locking nut A6H8
23 Tilting mechanism A6MP5
24 Machine screw A11A5H20
25 Lockwasher A11A5H74
26 HOURS counter A11A5MP11
27 Machine screw A11A5H1
28 Counter drive arm A11A5MP1
29 Machine screw A11A5H29
30 Lockwasher A11A5H30
31 Counter drive mechanism A11A5A7
32 Mounting stud A11A5MP51–52
33 Ventilation motor leads
34 Octal plug connector A3A11A3P59
35 Drive motor plug connector A11B101P106
36 Receptacle connector J105
37 Main drive sprocket A11A5MP38
38 Machine screw H11
39 Hex nut H10
40 Washer H14
41 Washer H13
42 Machine screw H12
43 Washer H40
44 Washer H41
45 Not used.
46 Not used.
47 Not used.
48 Lead A11W1
49 Rear plate assembly A11A6

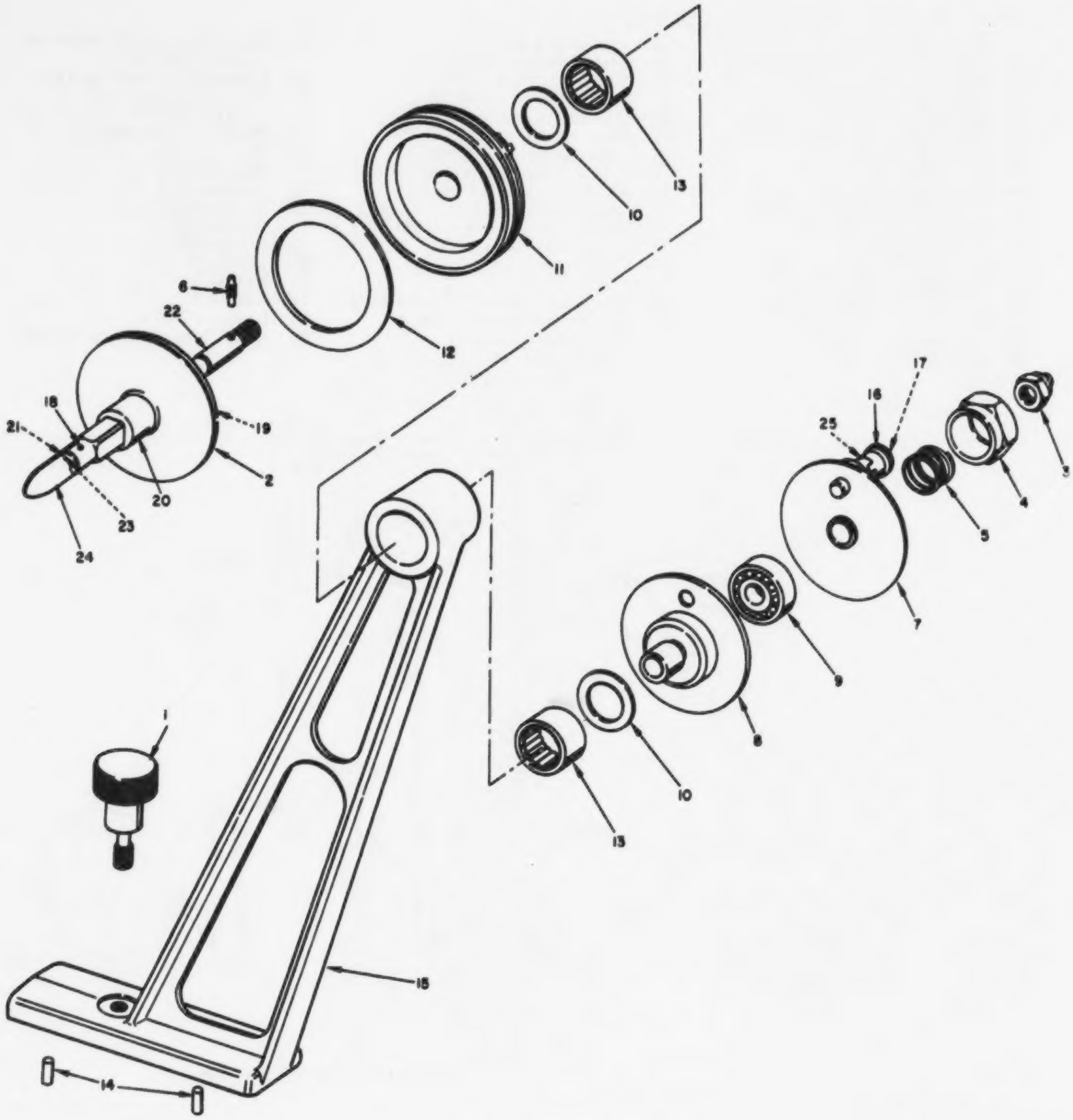
Figure 26—Continued.



Note. Prefix reference designators with A3A11A6.

1 Screw H1
2 Lockwasher H3
3 Spacer MP10
4 Mount MP3–4
5 Setscrew H5–H6
6 Pulley MP6
7 Stud H7
8 Rear section plate MP5
9 Washer H4
10 Screw H2
11 Cable assembly W1
12 Wire braid W1E1
13 Lug (p/o item 12)

Figure 26.1 Rear mechanism plate assembly, exploded view.

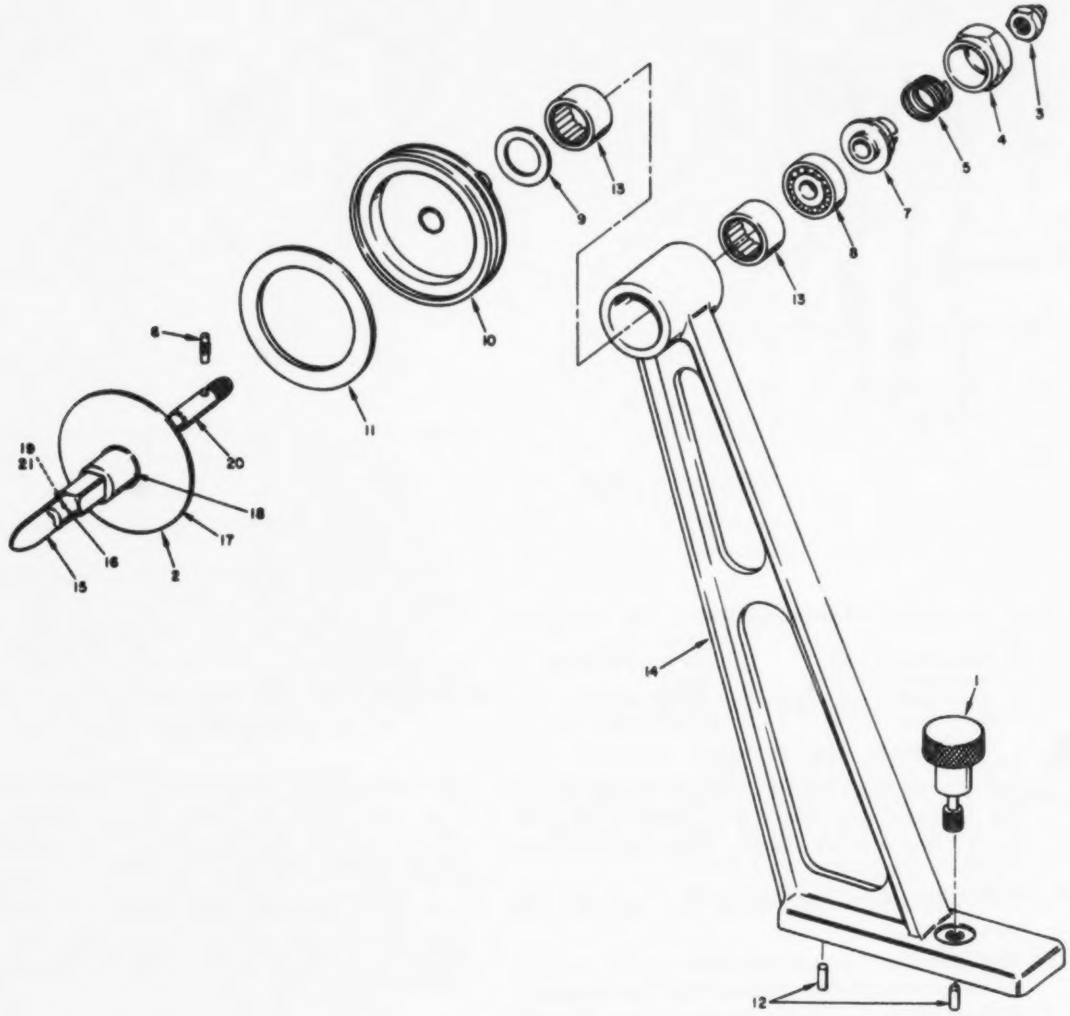


EL6730-210-35-C3-TM-33

Note. Prefix reference designators with A3A2.

1	Thumbscrew MP12
2	Spindle assembly A3
3	Capnut No. 10-32 H1
4	Spindle tension nut MP6
5	Spindle tension spring MP11
6	Spring pin MP7
7	Clutch A2
8	Clutch plate A1
9	Ball bearing MP2
10	Thrust washer MP13–MP14
11	Feed spindle pulley MP10
12	Friction washer MP5
13	Thrust bearing MP3–MP4
14	Dowel pin, steel 1/8 by 5/16 MP8–MP9
15	Feed reel arm MP1
16	Knob A2MP1
17	Stud A2MP3
18	Pin A3H1
19	Disc A3MP2
20	Plate A3MP3
21	Plunger A3MP4
22	Spindle A3MP5
23	Spring A3MP6
24	Clip A3MP1
25	Spring A2MP2

Figure 27. Feed reel assembly, exploded view.

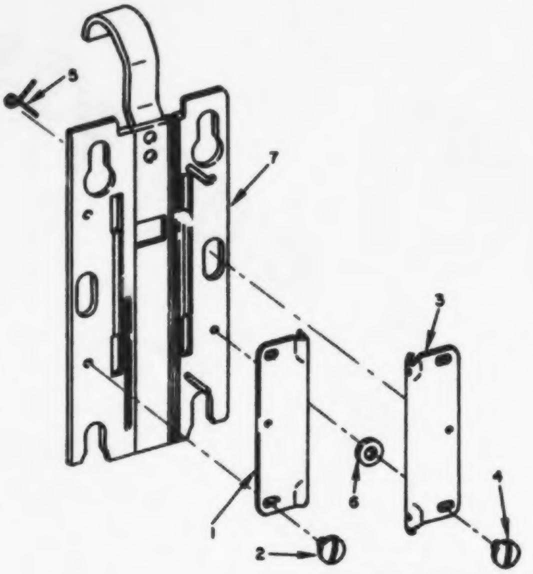


EL6730-210-35-C3-TM-34

Note. Prefix reference designators with A8A8.

1 Thumbscrew MP12
2 Spindle A1
3 Capnut No. 10-32 H1
4 Spindle tension nut MP6
5 Spindle tension spring MP11
6 Spring pin MP7
7 Spindle tension plate MP15
8 Ball bearing MP2
9 Thrust washer MP13
10 Takeup spindle pulley MP10
11 Friction washer MP5
12 Dowel pin MP8-MP9
13 Thrust bearing MP3-MP4
14 Takeup reel arm MP1
15 Clip A1MP1
16 Pin A1H1
17 Disc A1MP2
18 Plate A1MP3
19 Plunger A1MP4
20 Spindle A1MP5
21 Spring A1MP6

Figure 28. Takeup reel assembly, exploded view.



TM6730-210-35-35

Note. Prefix reference designators with A3A11A5-A25.

1 Fixed film rail A3
2 Machine screw H3
3 Floating film rail A2
4 Machine screw H1
5 Side tension spring MP1
6 Flat washer H2
7 Aperture plate A1

Figure 29. Aperture plate, exploded view.

b. Rotate the THREADING KNOB to expose the sprocket setscrews (4). Loosen the setscrews and remove the film sprocket (5) from the sprocket shaft.

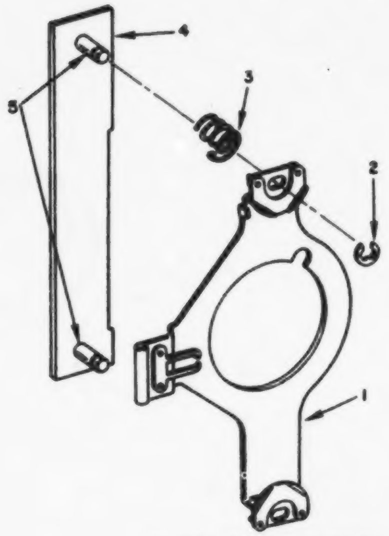
c. Remove the flat washer (6) and the film stop (7).

d. Remove the machine screws (8) and the lockwashers (9) that fasten the film shoe pivot bracket (11) to the mechanism plate. Remove the two pivot screws (10) and disassemble the pivot bracket (11) from the film shoe (12). Be careful not to lose the film shoe plunger (13) and the compression spring (14) as the bracket is separated from the shoe.

e. Refer to paragraph 114 for film sprocket and associated item reassembly instructions.

65. Condenser Lens Disassembly
(fig. 32)

a. The condenser lenses (1 and 3) can be removed by forcing together the open ends of the front and rear lock springs (2 and 4) until they can be lifted from the condenser lens bracket (8). Wrap the condenser lenses in tissue to prevent accidental damage.



EL6730-210-35-C3-TM-36

Note. Prefix reference designators with A3A11A5-A26.

1 Pressure plate clip MP5
2 Retaining ring H1
3 Compression spring MP3–MP4
4 Plate and stud assembly MP6
5 Pin MP1–MP2

Figure 30. Pressure plate, exploded view.

b. Remove the machine screws (6) and lift the lens bracket lock lever (5) and the compression spring (7) from the condenser lens bracket.

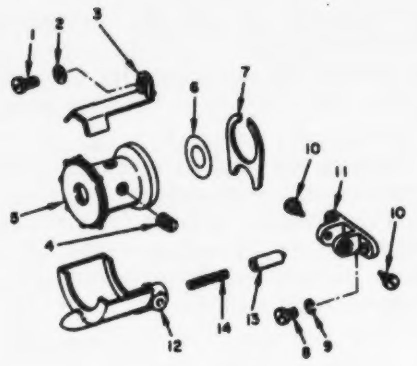
c. Refer to paragraph 113 for condenser lens reassembly instructions.

66. Shuttle and Cams Disassembly
(fig. 33)

Note

Shuttle and cam parts (items 17 through 23) are supplied as a kit (FSN 6730-341-7874.) If one of these parts is worn or damaged, the complete kit must be replaced.

a. Loosen the setscrews (1) and remove the FRAMER knob (2). Remove the machine screws (3) and the lockwashers (4) that at-



Note. Prefix reference designators with A3A11A5-A32, A33, or A34, except items 1 through 7.

1	Machine screw A3A11A5H16	8	Machine screw, special H21
2	Lockwasher H17	9	Lockwasher H60
3	Film stripper MP21	10	Pivot screw H1
4	Sprocket setscrew H73	11	Pivot bracket MP1
5	Film sprocket MP42	12	Film shoe MP3
6	Flat washer H18	13	Film shoe plunger MP2
7	Film stop MP45–MP47	14	Compression spring MP4

Figure 31. Film sprockets and associated items, exploded view.

tach the shutter cover (5) and lift off the shutter cover.

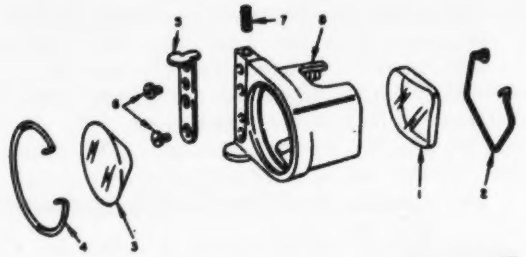
b. Remove the short machine screw (6), the three long machine screws (7), and the lockwashers (8) and lift off the shuttle cover (9).

c. Unhook the extension spring (10) from the spring holes in the shuttle (19) and the extension spring retaining ear (24).

d. Unscrew and remove the locknut (11), the front cam counterweight (12), and the front cam lubricating disk (13) from the front camshaft (27).

e. Unscrew and remove the self-locking nut (14) from the pivot bar shaft (25); remove the self-locking nut (15) and the rear cam retaining washer (16) from the rear camshaft (26).

f. Remove the shuttle kit parts (17 through 23).



Note. Prefix reference designators with A3A11A5-A20.

1	Front condenser lens MP3		Machine screw, special H2
2	Front lock spring H1	7	Compression spring MP5
3	Rear condenser lens MP2	8	Condenser lens bracket MP1
4	Rear lock spring H3		
5	Lens bracket lock lever MP4		

Figure 32. Condenser lens assembly, exploded view.

g. Refer to paragraph 112 for the assembly of shuttle parts.

67. Tilting Mechanism Disassembly
(fig. 34)

a. Lift the tilt jack arm (1), the thrust washer (2), the tilt jack pinion (3), and the friction spring (4) from the tilt jack housing (7).

b. Slide the tilt gear rack (6) from the housing. Inspect the rubber foot (5) and replace if damaged.

c. Refer to paragraph 111 for tilting mechanism reassembly instructions

68. Projector Legs Disassembly
(fig. 35)

a. Rear Leg.

(1) Unscrew and remove the fixed foot (1) and the lockwasher (2).

(2) Remove the machine screw (3) and the lockwasher (4) and disassemble the adjustable foot (5) from the rear leg bracket (7). Unscrew the leg adjustment screw (6).

(3) Refer to paragraph 110*a* for rear leg reassembly instructions.

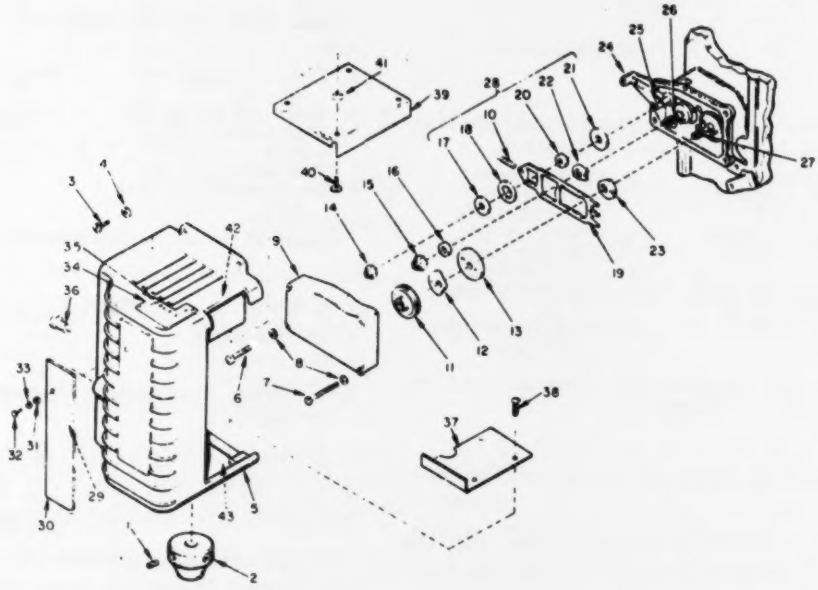
b. Front Leg. The projector front leg is identical with the rear leg except that it is equipped with two fixed feet (1). Unscrew and remove the fixed feet (1) and the lockwashers (2). Refer to paragraph 110*b* for front leg reassembly instructions.

69. Counter Drive Mechanism Disassembly (fig. 36)

a. Remove the machine screw (1) and the lockwasher (2) and lift off the counter mechanism cover (3).

b. Remove the retaining ring (4) and the cam and gear (5) from the cam gear stud (13).

c. Remove the machine screws (6) and the lockwashers (7) and separate the gear train plate (8) from the counter drive mechanism housing (29). If the cam gear stud (13) is in need of replacement, drive it from the gear train mounting plate (14).



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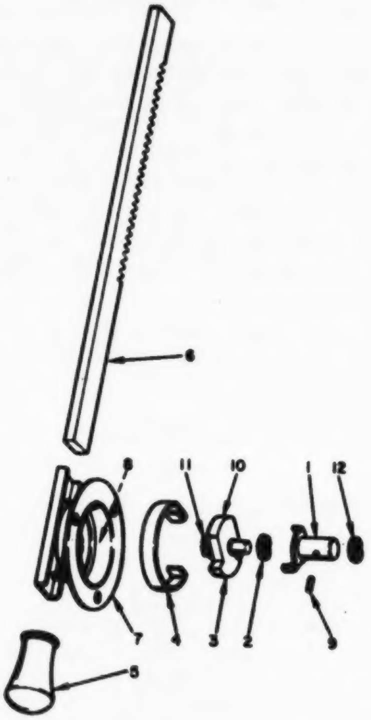
Note. Prefix reference designators with A3A11A5.

1	Setscrew H50
2	FRAMER knob MP16
	Machine screw H21
4	Lockwasher H22
5	Shutter cover A5
6	Machine screw H23
7	Machine screw H24
8	Lockwasher H25
9	Shuttle cover A6
10	Extension spring MP35
11	Locknut, special A23
12	Front cam counterweight MP12
13	Front cam lubricating disc MP14
14	Self-locking nut H3
15	Self-locking nut H58
16	Rear cam retaining washer MP31
17	Shuttle pivot bushing washer A36MP5
18	Shuttle pivot spacer, outer A36MP4
19	Shuttle A36A1
20	Shuttle pivot bushing A36MP1
21	Shuttle pivot spacer, inner A36MP6
22	Horizontal motion cam A36MP2
23	Vertical motion cam A36MP3
24	Shuttle cover mounting plate A24
25	Pivot bar shaft A2MP2
26	Rear camshaft A31
27	Front camshaft A30
28	Shuttle, cam and pivot assembly A36
29	Plate A5MP1
30	Nameplate A5MP2
31	Nut A5H1
32	Screw A5H2
33	Lockwasher A5H3
34	Plate A5MP3
35	Pin A5H4
36	Seat A5MP4
37	Lower shield A5MP5
38	Pin A5H5
39	Upper shield A5MP6
40	Pin A5H7
41	Spacer A5H8
42	Felt A6MP1
43	Felt A6MP2

Figure 33. Shuttle and cams, exploded view.

d. Press out the pinion hub (9) to free the pinion (10) and shoulder washer (11). If the sleeve bearing (12) is damaged or excessively worn, press it from the gear train mounting plate (14).

e. Loosen the setscrew (15) and remove the drive disk (16). Loosen the setscrew (17) so that the ratchet worm gear (18) is loose on the output shaft (20) within the counter drive mechanism housing (29). Remove the retaining rings (19) and withdraw the output shaft (20) from the housing, holding the ratchet worm gear (18) as it drops free.



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Note. Prefix reference designators with A3A6.

1	Tilt jack arm assembly A1	6	Gear rack A3A1
2	Thrust washer A3MP2	7	Tilt jack housing A3
3	Tilt jack pinion A6	8	Gasket A3MP1
4	Friction spring MP17	9	Pin (p/o item 1)
5	Rubber foot MP22	10	Anchor A6MP1
		11	Spur A6MP2
		12	Friction spring MP20

Figure 34. Tilting mechanism, exploded view.

f. Unhook the extension spring (21) from the small holes in the counter drive mechanism housing and the lower end of the ratchet arm (27).

g. Remove the retaining ring (22), the spacer (23), the ratchet wheel (24), the ratchet arm (27), and the washers (25, 26, and 28) from the mounting stud in the counter drive mechanism housing (29).

h. Refer to paragraph 109 for the assembly of counter drive mechanism reassembly instructions.

70. Switchplate Disassembly
(fig. 37)

a. Unscrew the lamp shield (1) and remove the panel lamp (2) from the lampholder (22).

b. Mark and disconnect the line cord terminals (3) from the OFF–MOTOR–LAMP switch (10).

c. Remove the machine screw (4) and the switch knob (5) and unscrew the switch knob index stub (7) from the shaft of the OFF–MOTOR–LAMP switch (10). Remove the three switch mounting nuts (8) and disassemble the three switches (9, 10, and 11), the switch locating disks (12), the switch insulator (13), and the switchplate (14) from the switchplate housing (33).

d. Remove the machine screws (15 and 18), the hexagonal nuts (17 and 20), and the lockwashers (16 and 19), and separate the lampholder bracket (21) and the lampholder (22) from the housing.

e. Remove the machine screws (23), the hexagonal nuts (24), and the lockwashers (25) and disassemble the socket retaining ring (26), the octal socket (27), and the socket mounting spacers (28) from the socket mounting plate (32). Remove the machine screws (29), the hexagonal nuts (30), the lockwashers (31), and the socket mounting plate (32).

f. Refer to paragraph 108 for switchplate reassembly instructions.

71. Drive Motor Disassembly
(fig. 38)

Note

If electrical components of the drive motor must be replaced, unsolder wire leads as necessary to permit their removal.

a. Remove the machine screws (2), the lockwashers (3), and the wire-wound resistor (1). Remove the machine screws (5), the lockwashers (6), and the single flat washer (7) that attach the capacitors (4 and 33) to the motor housing. To remove the remaining two capacitors (34), remove the machine screws (35) and the lockwashers (36).

b. Loosen the setscrew in the flexible drive coupling of the gear housing (8), and shift the coupling to expose the machine screw (11). Remove the machine screws (9 and 11) and the lockwashers (10 and 12), and separate the gear housing (8) from the drive motor rear housing (42). Refer to paragraph 72 for gear housing disassembly instructions.

c. Remove the machine screws (14 and 16) and the lockwashers (15) and lift the complete motor mounting bracket (13) from the motor housing.

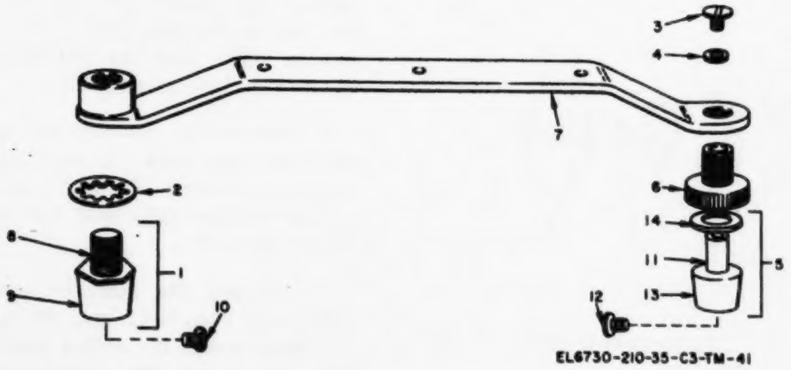
d. Remove the machine screws (17), the lockwashers (18), and the flat washers (19) that hold the idler (20) to the motor mounting bracket. Remove the retaining ring (21) and the idler roller (22) from the idler roller arm (23).

e. Remove the brush holder caps (29) and the motor brushes (30). The motor brush holders (32) are secured with the setscrews (31) and need not be removed unless damaged and in need of replacement.

f. Loosen the setscrews (38) and remove the governor (37) and the governor brushes (39). The governor brush holders (41) are secured with the setscrews (40) and need not be removed unless in need of replacement.

g. Remove the machine screws (43) and the lockwashers (44) and withdraw the drive motor rear housing (42). Pull the motor armature (49) from the front housing and lift out the bearing loading spring (50). If the motor drive gear (46) is damaged, drive out the spring pin (45) that secures the gear to the armature shaft. If the ball bearings (47 and 48) are noisy or rough when spun, pull them from the armature shaft.

h. The motor field winding (52) is held into the front housing with two field winding screws



Note. Prefix reference designators with A3A6A4 or A3A6A5.

1 Fixed foot A1
2 Lockwasher H1
3 Machine screw H2
4 Lockwasher H3
5 Adjustable foot A2
6 Leg adjustment screw MP1
7 Projector leg bracket A3
8 Mount A1MP2
9 Bumper A1MP1
10 Pin A1MP3
11 Adjustable bumper A2MP1
12 Pin A2MP3
13 Bumper A2MP2
14 Washer A2MP4

Figure 35. Projector rear leg assembly, exploded view.

(53) and two lockwashers (54). Do not remove the motor field winding unless tests (para 88) indicate that replacement is necessary.

i. Refer to paragraph 88 for drive motor repairs and to paragraph 107 for drive motor reassembly instructions.

72. Motor Gear Housing Disassembly
(fig. 39)

a. The flexible drive coupling (1) and the drive shaft sprocket (2) were disassembled to permit removal of the gear housing from the drive motor (para 71*b*). Press the sprocket from the coupling.

b. Remove the screws (4) and the lockwashers (5) that fasten the gear housing cover (3) to the gear housing (9). Remove the gear and shaft (8) from the housing, noting the arrangement of the nonmetallic washer (6) and the shim washers (7) on the end of the shaft. Be careful not to lose the shim washers; the same quantity and thickness of shim washers must be installed on the gear shaft when the gear housing is assembled.

c. Refer to paragraph 106 for motor gear housing reassembly instructions.

73. Ventilation Motor Disassembly
(fig. 40)

a. Remove the brush caps (1) and the motor brushes (2). The motor brush holders (4) are secured with the setscrews (3) and need not be removed unless in need of replacement.

b. Loosen the setscrews in the hub of the blower wheel (5) until the wheel can be withdrawn from the armature shaft.

c. Remove the machine screws (7) and the lockwashers (8) and lift off the housing cover (6). Removal of the machine screws (7) also will free the two capacitors (9).

d. Lift the armature (12) and the bearing loading spring (13) from the ventilation motor housing (14). Spin the ball bearings (10); if rotation is rough or excessively noisy, pull the bearings and the flat washer (11) from the shaft of the armature (12).

e. The field winding (15) is held into the motor housing with two machine screws (16) and lockwashers (17). Do not remove the field winding unless tests (para 89) indicate that replacement is necessary.

f. Refer to paragraph 105 for ventilation motor reassembly instructions.

74. Relay K101 Disassembly
(fig. 41)

a. Remove the machine screws (1), the lockwashers (2), and the relay box cover (3).

b. Remove the machines screws (4) and the lockwashers (5) and remove relay K101 (6) and the spacers (7) from the relay box (10).

c. Remove the nut (9) and the receptacle connector (8) from the relay box.

d. Refer to paragraph 104 for relay K101 reassembly instructions.

75. Soundhead Disassembly
(fig. 42)

a. Remove the retaining rings (1) and the flat washers (2) that hold the jockey roller assemblies (3 and 4) to the jockey pivot studs (5). The pivot studs (5) and lockwasher (6) need not be removed from the soundhead mounting plate (70) unless in need of replacement. Refer to paragraph 76 for disassembly procedures for the jockey roller.

b. Remove the special machine screw (7) and disassemble the impedance roller assembly (8) from the soundhead mounting plate. Refer to paragraph 77 for disassembly instructions for the impedance roller.

c. Remove the machine screws (9) and the shield (10). Unscrew the record indicator lamp (11) from the lampholder (12).

d. Loosen the exciter lamp cover screw (13) and remove the exciter lamp cover assembly (15). To remove the ruby jewel (14), pry up the two bent-over tabs inside the cover assembly and press the jewel from the cover. Move in pin release cam (21) to the right to free the exciter lamp (16). Disconnect the insulated splice (17) on the underside of the soundhead chassis assembly (42) to free the lamp contact cable assembly (22) and pull the cable assembly through the opening near the bottom of the soundhead mounting plate. Remove the machine screws (18) that fasten the exciter lamp socket assembly (23) to the soundhead mounting plate. Unscrew the lamp socket nut (19) and disassemble the lamp contact tension spring (20), the pin release cam (21), and the lamp contact cable assembly (22) from the exciter lamp socket assembly (23).

e. The scanner lens (25) should not be removed unless preliminary inspection indicates that the lens is in need of replacement. If replacement is necessary, pry out the sealing compound above the head of the machine screw (24). Remove the screw and withdraw the scanner lens.

f. Remove the machine screw (26) and the lockwasher (27) and lift off the photocell cover (28) to expose the photocell assembly (31). Remove the machine screws (29) and the lockwashers (30) that fasten the photocell assembly to the photocell mounting plate (32). Remove the terminal screws in the terminal block (68) to free the photocell lead-wire lugs as well as the lugs of the wiring harness (51), and then reassemble the terminal screws into the terminal block to prevent their loss. Loosen the two machine screws (29) and twist the photocell mounting plate (32) clockwise to remove it from the soundhead mounting plate.

g. Remove the self-locking nut (33), the flat washer (34), and the retracting lever (35) from the lever pivot stud (36). The pivot stud need not be unscrewed from the soundhead mounting plate unless it is in need of replacement. Loosen the three setscrews (37 and 38). Be careful when removing the soundhead stabilizer assembly.

h. Carefully withdraw the soundhead stabilizer assembly (39) from the soundhead mounting plate. Refer to paragraph 78 for soundhead stabilizer disassembly instructions.

i. Remove the three machine screws (40) and the lockwashers (41) that fasten the soundhead chassis assembly (42) to the soundhead mounting plate, and withdraw the chassis assembly from the mounting plate to facilitate the unsoldering of wire leads. Remove the machine screw (43), the hexagonal nut (44), and the lockwashers (45) that fasten the cable clamp (46) to the cable clamp bracket (50). The bracket is fastened to the soundhead chassis with the machine screw (47), the hexagonal nut (48), and the lockwasher (49) and need not be removed.

j. Unsolder the leads of the wiring harness (51) from the plug connector (52) only if the connector or harness leads are in need of replacement. If the plug connector (53) must be replaced, slide the insulating sleeve (54) away from the connector to expose the solder pins, and then unsolder the wire leads.

k. Press down on the tube shield (55), twist it counterclockwise, and remove it from the socket. Remove the electron tube (56). Remove the hexagonal nuts (57), the lockwashers (58), the machine screws (59), and the flat washers (60) that fasten the turret and socket assembly (62) to the soundhead chassis. Note that the grounding lug terminal (61) is located beneath the hexagonal nut (57) nearest the rear of the chassis.

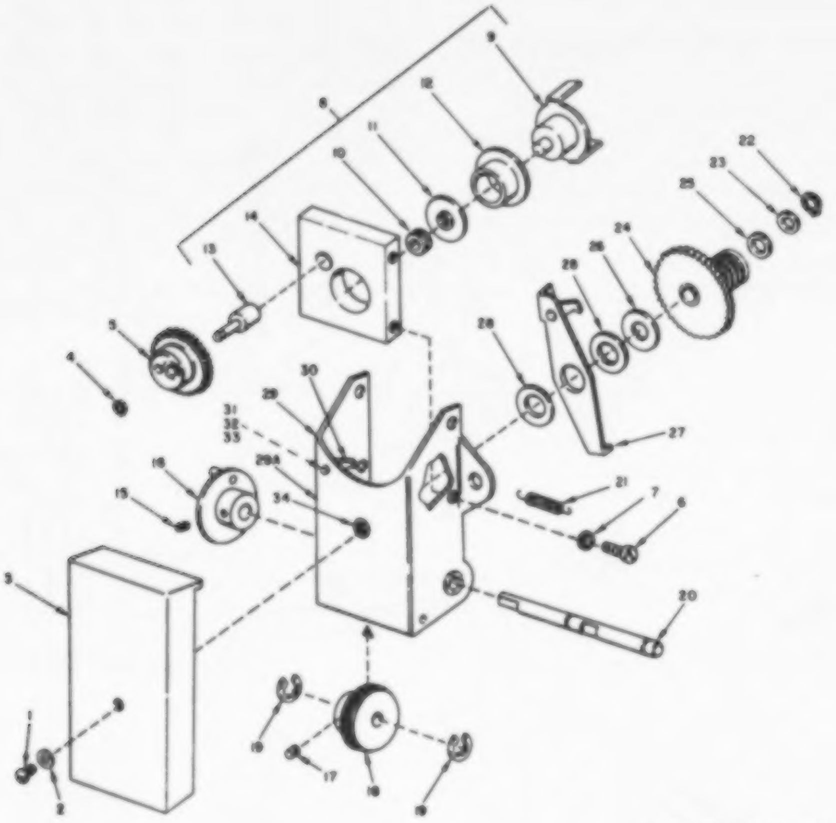
l. Remove the machine screws (63) and the hexagonal nuts (64) that fasten the input transformer (65) to the soundhead chassis. The terminal block (68) is secured to the soundhead chassis with a machine screw (66) and a lockwasher (67) and need not be removed unless in need of replacement. Unsolder and remove the exciter lamp cable assembly (69). If the soundhead chassis is in need of further repair, refer to the instructions in paragraph 79 for further soundhead chassis disassembly.

m. Refer to paragraphs 99 through 103 for reassembly procedures for the soundhead chassis.

76. Jockey Roller Disassembly (fig. 43)

NOTE

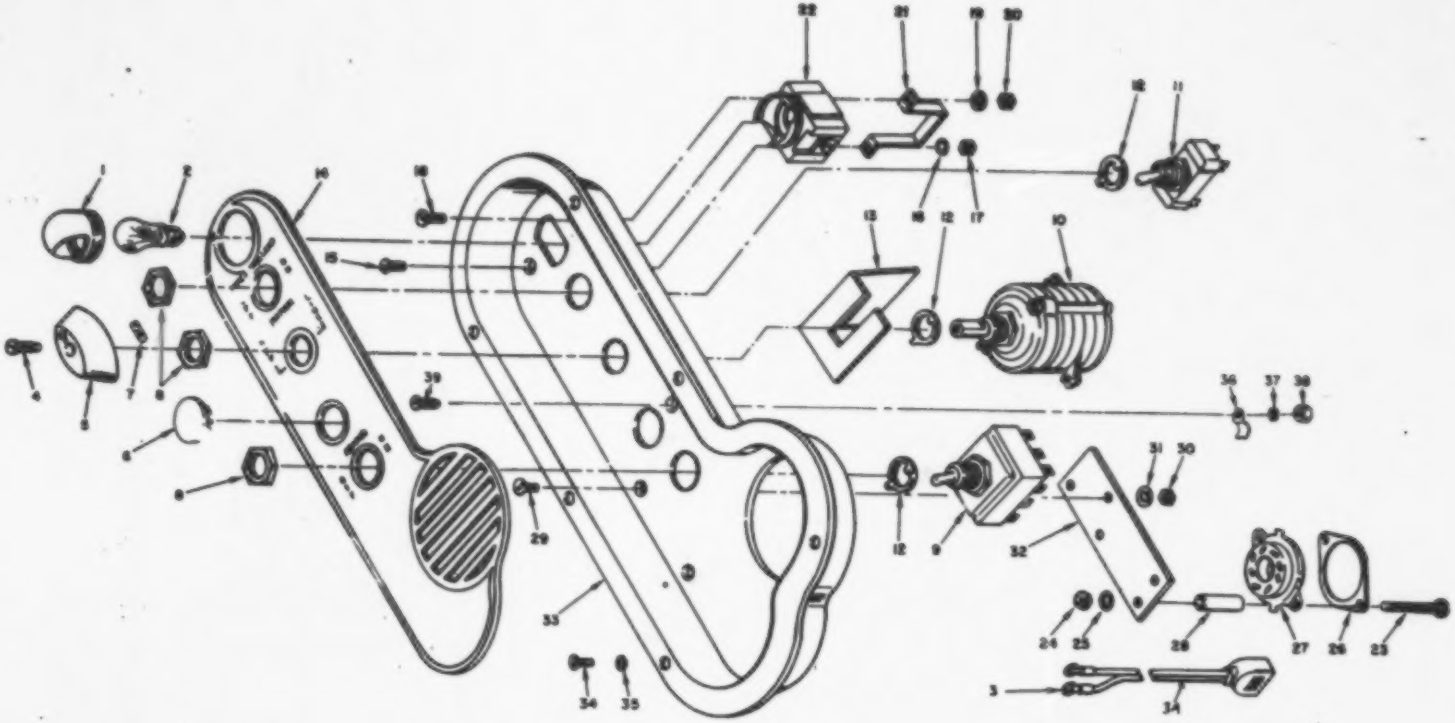
Except for the diameter of the rollers (3) and the configuration of the roller housings (6), the jockey roller as-



Note. Prefix reference designators with A3A11A5A7.

1 Machine screw H2
2 Lockwasher, internal teeth No. 3 H3
3 Counter mechanism cover MP1
4 Retaining ring H1
5 Cam and gear assembly A2
6 Machine screw H5
7 Lockwasher, internal teeth No. 5 H9
8 Gear train plate assembly A5
9 Pinion hub A5MP2
10 Pinion A5MP3
11 Shoulder washer A5MP6
12 Sleeve bearing A5MP1
13 Cam gear stud A5MP5
14 Gear train mounting plate A5MP4
15 Setscrew, 5-40 by ⅛-inch H7
16 Drive disk A3
17 Setscrew, 5-40 by ⅛-inch H4
18 Ratchet worm gear MP2
19 Retaining ring H8
20 Output shaft MP3
21 Extension spring MP4
22 Retaining ring H6
23 Spacer MP6
24 Ratchet wheel A6
25 Nonmetallic shim washer, 0.010 inch thick MP8-MP9
26 Shim washer, steel 0.002 inch thick MP7
27 Ratchet arm A1
28 Flat washer, steel 0.015 inch thick MP5
29 Counter drive mechanism housing assembly A4
29A Housing A4MP1
30 Pawl A4MP2
31 Pivot A4MP3
32 Spacer A4MP4
33 Spring A4MP5
34 Stud A4MP6

Figure 36. Counter drive mechanism, exploded view.



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Note. Prefix all reference designators with A3.

1	Lamp shield (p/o item 22)
2	Panel lamp A12DS101
3	Line cord assembly A12W102
3A	Cable A12W102W1
4	Machine screw A12H18
5	Switch knob A12MP4
6	Button plug A12MP7
7	Switch knob index stud A12H14
8	Switch mounting nut A12H16
9	REWIND switch A12S105
10	OFF-MOTOR-LAMP switch A12S103
11	ON-OFF switch A12S102
12	Switch locating disk A12H15
13	Switch insulator A12MP3
14	Switchplate A12MP5
15	Machine screw, steel flathead No. 4-36 by ⅜ inch A12H4
16	Lockwasher A12H5
17	Plain hexagonal nut, steel No. 4-36 A12H2
18	Machine screw A12H3
19	Lockwasher A12H6
20	Plain hexagonal nut, steel No. 6-32 A12H1
21	Lampholder bracket A12MP1
22	Lampholder A12XDS101
23	Machine screw A12H11
24	Plain hexagonal nut A12H10
25	Lockwasher A12H13
26	Socket retaining ring A12MP8
27	Octal socket A12J104
28	Socket mounting spacers A12H12
29	Machine screw A12H8
30	Plain hexagonal nut, steel No. 6-32 A12H7
31	Lockwasher A12H9
32	Socket mounting plate A12MP6
33	Switchplate housing A12MP2
34	Screw H37
35	Lockwasher H38
36	Clamp A12MP9
37	Lockwasher A12H20
38	Nut A12H21
39	Machine screw A12H19

Figure 37. Switchplate assembly, exploded view.

semblies are identical in construction and are disassembled in the same manner, as in *a* through *c* below.

a. Loosen the setscrew (1) and disassemble the jockey roller shaft (2) and roller (3) from the roller housing (6).

b. Inspect the sleeve bearings (4 and 5) for roughness, excessive wear, or out-of-round condition and, if necessary, press the faulty bearing or bearings from the housing.

c. Refer to paragraph 102 for jockey roller reassembly instructions.

77. Impedance Roller Disassembly
(fig. 44)

a. Loosen the setscrews (1 and 2), withdraw the pivot pins (4 and 5), and remove the impedance roller (6).

b. Remove the machine screw (7) and the lockwasher (8). Unscrew the roller adjusting nut (9) and withdraw the roller mounting stud (10) and the torsion spring (11) from the impedance roller housing (12).

c. Refer to paragraph 101 for impedance roller reassembly instructions.

78. Soundhead Stabilizer Disassembly
(fig. 45)

a. Remove the machine screws (1) and disassemble the light pipe bracket (2), the light pipe prism (3), and the prism mount (4) from the stabilizer housing. Handle the prism carefully, and wrap it in tissue for protection.

b. Remove the special nut (5) and the sound drum (6). Wrap the drum in tissue for protection.

c. Remove the self-locking nut (7) and the bearing locknut (8). Remove the machine screws (9) and the bearing lock plate (10), and withdraw the stabilizer shaft (11) from the stabilizer housing (15). Remove the large ball bearing (12) from the stabilizer shaft.

d. Insert the eraser end of a pencil through the housing and press out the small ball bearing (13) and the thrust washer (14).

e. Refer to paragraph 100 for soundhead stabilizer reassembly instructions.

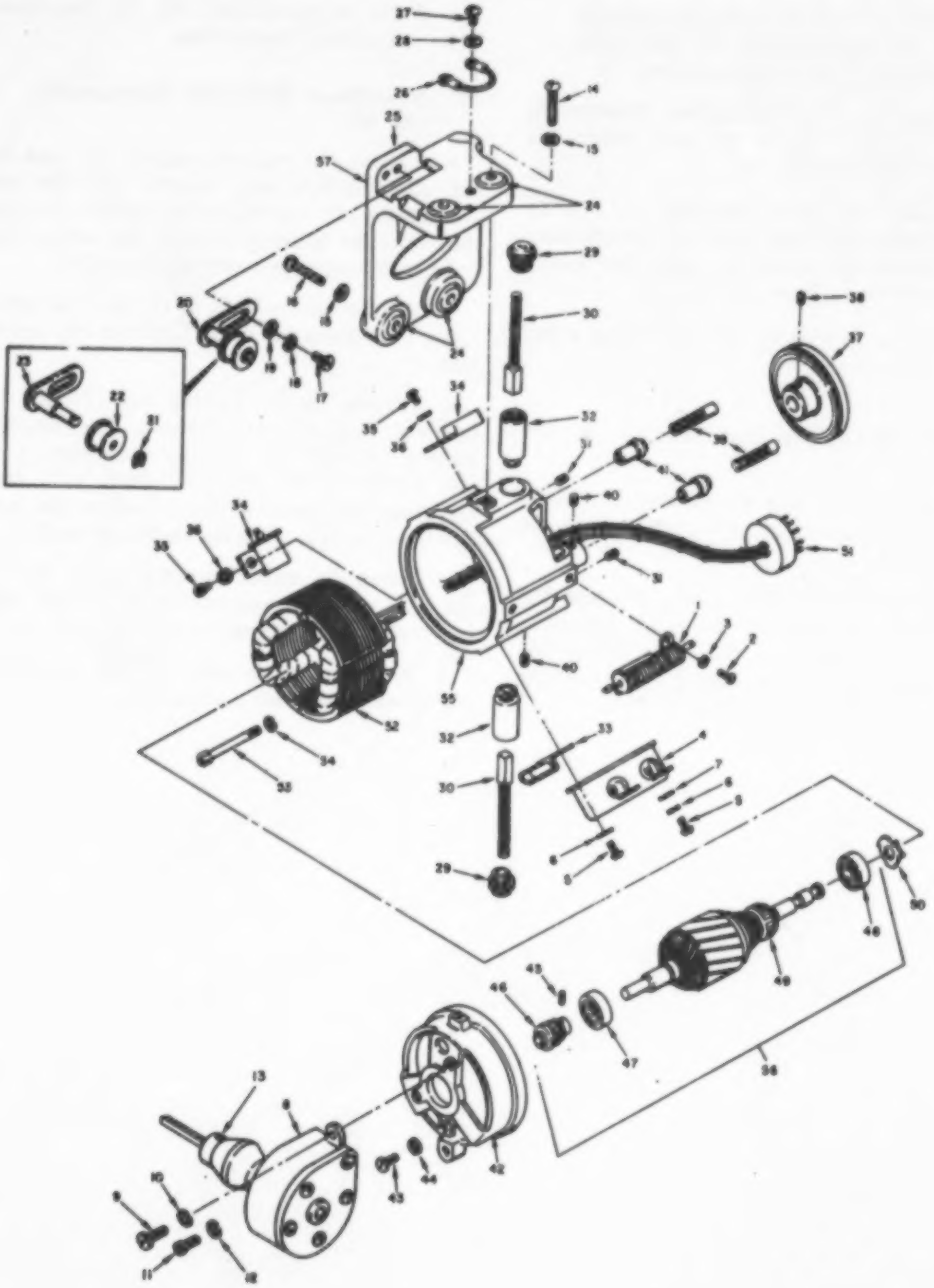

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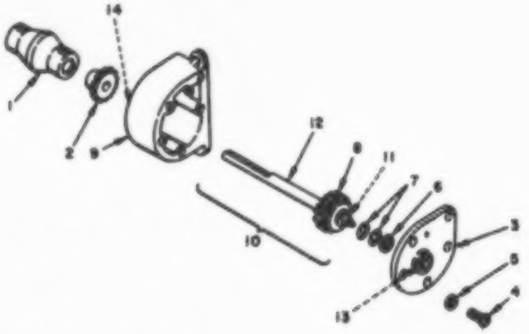
Figure 38. Drive motor assembly, exploded view.

Note. Prefix reference designators with A3A11B101.

1 Wire-wound resistor R105
2 Machine screw, steel roundhead 4-36 by ¼-inch H21
3 Lockwasher H22
4 Capacitor C109
5 Machine screw H19
6 Lockwasher H20
7 Flat washer, special H1
8 Gear housing A3A4
9 Machine screw, steel binding head 8-32 by 5/16-inch H5
10 Lockwasher H6
11 Machine screw H7
12 Lockwasher H8
13 Coupling setscrew A3A1
14 Machine screw H2
15 Lockwasher No. 10 H3
16 Machine screw H4
17 Machine screw, steel binding head 8-32 by ½ inch A2H1
18 Lockwasher A2H3
19 Flat washer, special A2H2
20 Idler A2A1
21 Retaining ring A2A1T1
22 Idler roller A2A1MP2
23 Idler roller arm A2A1MP1
24 Motor insulating bushing A2MP1-MP4
25 Motor mounting bracket assembly A2
26 Ground strap W5
27 Machine screw H9
28 Lockwasher H10
29 Brush holder cap E5-E6
30 Motor brush E3-E4
31 Setscrew H13
32 Motor brush holder E9-E10
33 Capacitor C112
34 Capacitor C107, C108
35 Machine screw H11
36 Lockwasher H12
37 Governor S106
38 Setscrew, steel hexagonal socket cup 8-32 by ⅛ inch (p/o S106)
39 Governor brush E1-E2
40 Setscrew H14
41 Governor brush holder E7-E8
42 Drive motor rear housing MP2
43 Machine screw, steel roundhead 6-32 by ⅛-inch H15
44 Lockwasher H16
45 Spring pin A1H1
46 Motor drive gear A1MP3
47 Ball bearing A1MP2
48 Ball bearing A1MP1
49 Motor armature A1L1
50 Bearing loading spring MP4-MP5
51 Plug connector P106
52 Motor field winding L101
53 Field winding screw H17
54 Lockwasher H18
55 Drive motor front housing MP1
56 Armature assembly A1
57 Bracket A2MP5

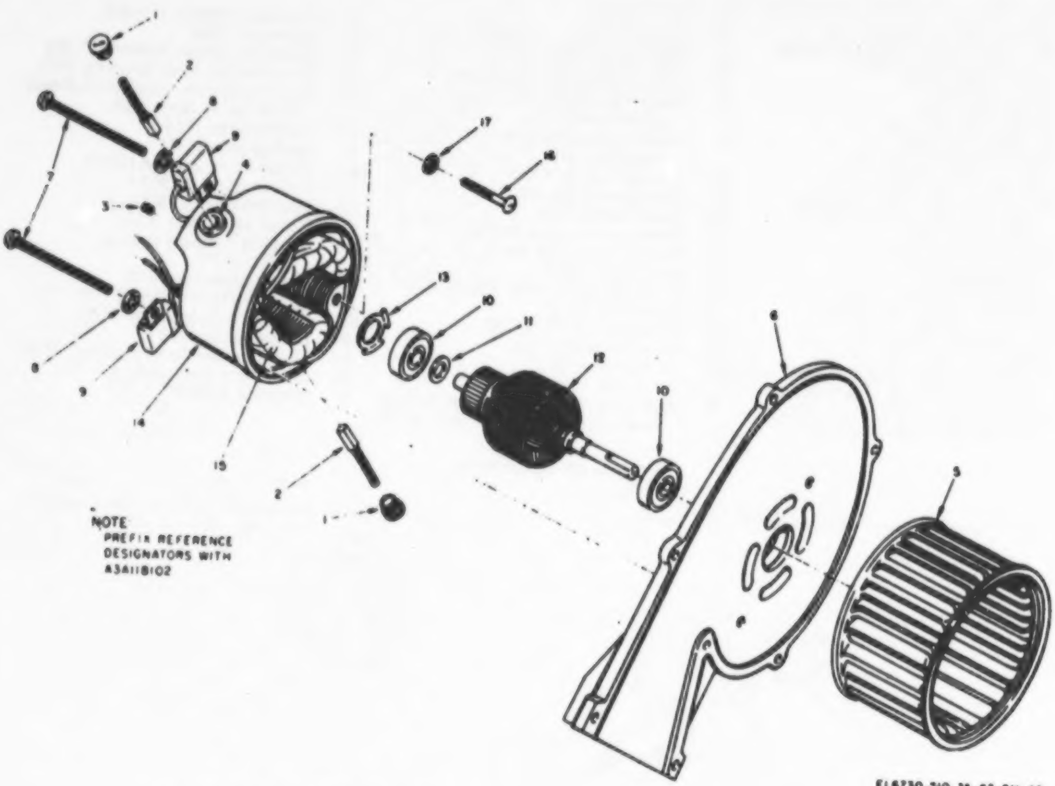
Figure 38—Continued.



Note. Prefix reference designators with A3A11B101A3.

1 Flexible drive coupling A1
2 Drive shaft sprocket MP1
3 Gear housing cover A2
4 Machine screw H1
5 Lockwasher H2
6 Nonmetallic washer MP3
7 Shim washer MP2-MP4
8 Gear A3MP1
9 Gear housing A4
10 Shaft assembly A3
11 Pin A3H1
12 Shaft A3MP2
13 Bearing A2MP1
14 Bearing A4MP1

Figure 39. Motor gear housing, exploded view.



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1 Brush cap ~~(A133)~~ (E3-E4)
2 Motor brush ~~(K105)~~ (E1-E2)
3 Setscrew ~~(H71)~~ (H1)
4 Motor brush holder ~~(A10)~~ (E5-E6)
5 Blower wheel ~~(O-71)~~ (MP3)
6 Housing cover ~~(A60)~~ MP7
7 Machine screw, steel roundhead 8-32 by 2-1/4-inch ~~(H90)~~ (H2)
8 Lockwasher ~~(H8)~~ (H3)
9 Capacitor (C104, C105)
10 Ball bearing ~~(O-70)~~ (MP1-MP2)
11 Flat washer ~~(H04)~~ (MP5)
12 Armature ~~(O-71)~~ (L1)
13 Bearing loading spring ~~(H05)~~ (MP6)
14 Ventilation motor housing ~~(A71)~~ (MP4)
15 Field winding ~~(L102)~~ (L102)
16 Machine screw ~~(H06)~~ (H4)
17 Lockwasher ~~(H3)~~ (H5)

Figure 40. Ventilation motor, exploded view.

79. Soundhead Chassis Disassembly (fig. 46)

a. The pushbuttons (1, 2, and 3) are cemented to the selector arms (8, 9, and 10) and it will be necessary to pry them off if replacement is necessary.

b. Remove the machine screws (4) and the lockwashers (5) that hold the selector arm clamp (6), and disassemble the selector arms (8, 9, and 10), the compression springs (7), the spring straps (12), the release and locking plate (13), and the compression spring (14) from the chassis subassembly (20).

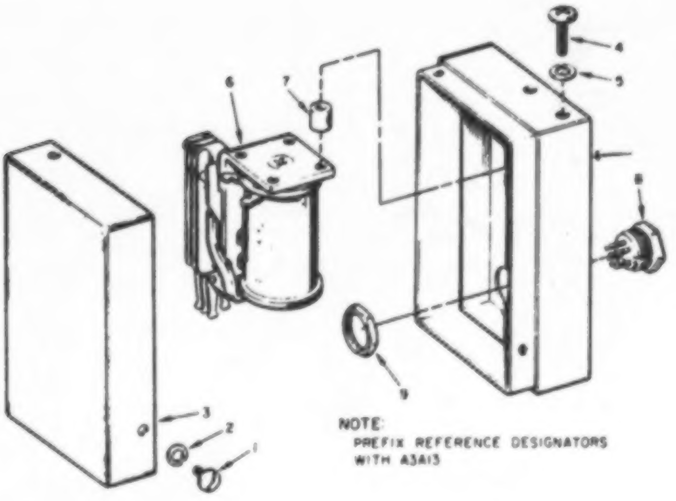
c. Loosen the setscrew (15) and disassemble the switchplate (16) and the rotary switch (17) from the chassis.

d. Remove the hexagonal nut (18) and the machine screw (19) that hold the snubber spring (11) to the chassis.

e. Refer to paragraph 99 for soundhead chassis reassembly instructions.

80. Lens Mounting Disassembly (fig. 47)

a. Remove the self-locking nut (2) and



1 Machine screw ~~[illegible]~~ (H1)
2 Lockwasher ~~[illegible]~~ (H2)
3 Relay box cover ~~[illegible]~~ (MP1)
4 Machine screw ~~[illegible]~~ (H3)
5 Lockwasher ~~[illegible]~~ (H5)
6 Relay ~~[illegible]~~ (K101)
7 Spacer ~~[illegible]~~ (H4)
8 Receptacle connector (J109)
9 Nut (p/o ~~[illegible]~~ (Item 8)
10 Relay box ~~[illegible]~~ (A1)

Figure 41. Relay K101, exploded view.

disassemble the pressure plate holder assembly (1), the film gate closing handle (3), the holder rod collar (4), and the compression spring (5) from the lens holder mounting (23).

b. Loosen the setscrew (7) and remove the focusing knob (6) and the spring washer (8). Unscrew the film gate release knob (9) from the pressure plate release rod (14).

c. Remove the machine screws (11) and the lockwashers (12) that hold the side rail (10) to the lens holder mounting. Remove the compression spring (13), the pressure plate release rod (14), and the focusing pinion (15).

d. Remove the machine screws (17), the lockwashers (18), the spring retaining plate (16), and the flat spring (19). Remove the machine screws (21) that attach the top rail (20).

e. The lens holder stop stud (22) is pressed in place and must be pried out if in need of replacement.

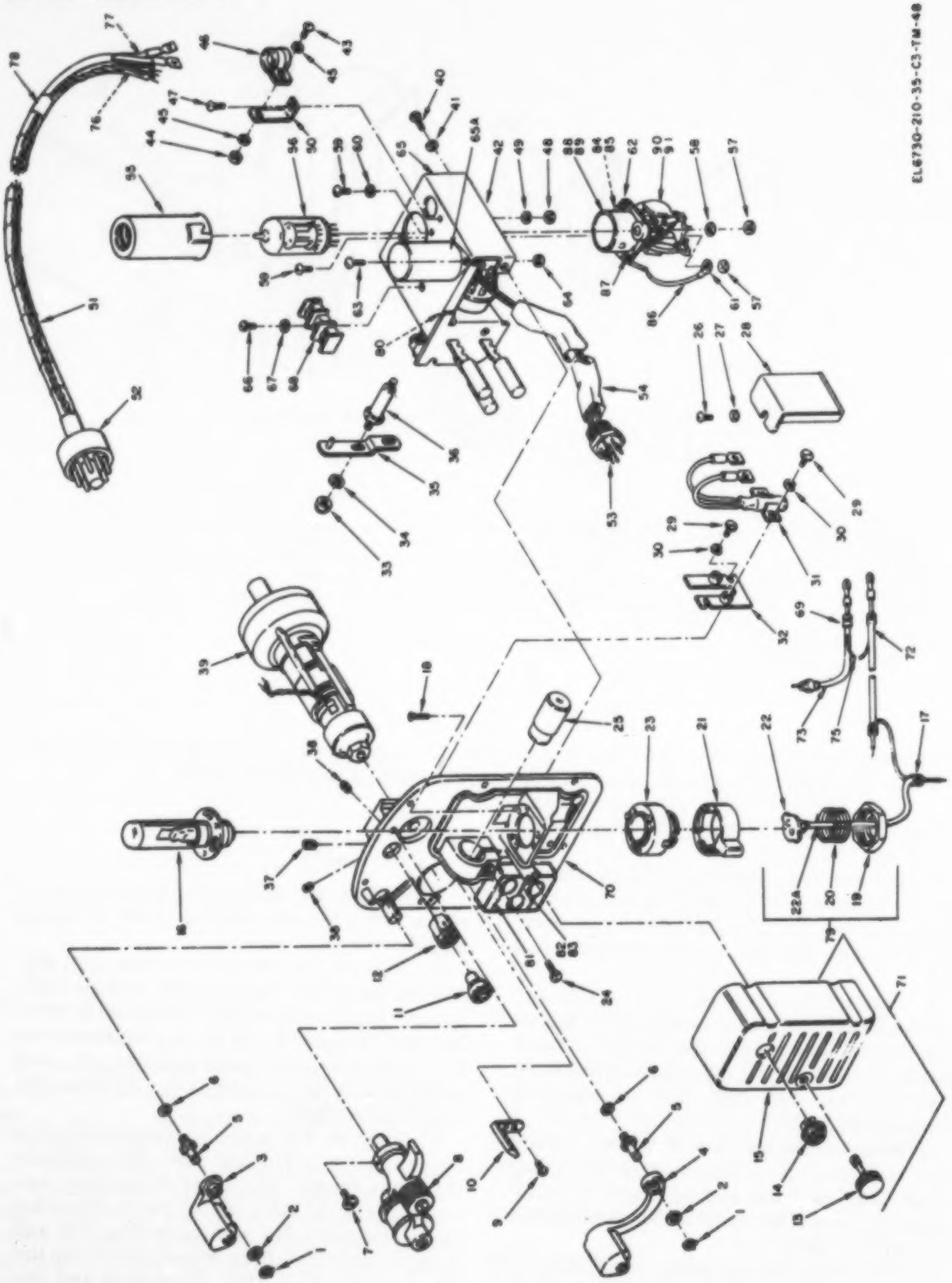
f. Refer to paragraph 98 for lens mounting reassembly instructions.

81. Mechanism Plate Components Disassembly

To remove the remaining minor components from the mechanism plate, proceed as follows:

a. Remove the machine screw ((1), fig. 48) the eccentric bearing (2), and the idler pulley (3). Remove the machine screws (4), the hexagonal nuts (5), the lockwashers (6), and the pilot lamp bracket (7), and disassemble the lampholder (8) from the mechanism plate.

b. Remove the machine screws (9), the lockwashers (10), and the flat washers (11) that fasten the drive chain idler assembly (12) to the rear of the mechanism plate. Remove the retaining ring (13) and disassemble the idler roller (14) from the idler roller arm (15). Disengage and remove the drive chain (16).



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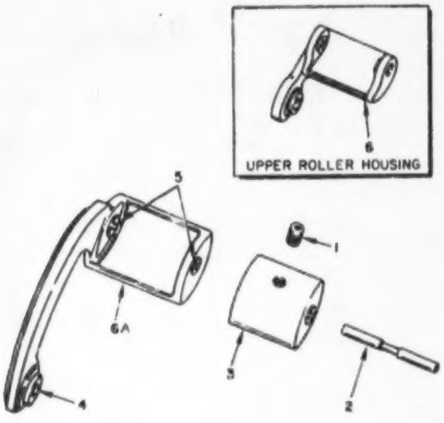
Note. Prefix reference designators with A3A11A3.

1 Retaining ring H23–H28
2 Flat washer, special H25–H30
3 Upper jockey roller assembly A9
4 Lower jockey roller assembly A7
5 Jockey pivot stud H24–H29
6 Lockwasher H26–H31
7 Machine screw, special H27
8 Impedance roller assembly A8
9 Machine screw, steel roundhead 4–36 by 3/16 inch H32
10 Shield MP10
11 Record indicator lamp DS51
12 Lampholder XDS51
13 Exciter lamp cover screw A2H1
14 Ruby jewel A2E101
15 Exciter lamp cover A2MP1
16 Exciter lamp DS52
17 Insulated splice W52E1–E3
18 Machine screw H13
19 Lamp socket nut MP7
20 Lamp contact tension spring MP11
21 Pin release cam MP2
22 Lamp contact cable assembly W1E1
22A Cable W1W1
23 Exciter lamp socket assembly A3XDS52
24 Machine screw H14
25 Scanner lens MP5
26 Machine screw H12
27 Lockwasher, internal teeth No. 5 H11
28 Photocell cover MP4
29 Machine screw, steel roundhead 4–36 by 3/16-inch H18–H20
30 Lockwasher H19–H21
31 Photocell assembly A5V52
32 Photocell mounting plate A6
33 Self-locking nut, steel No. 5–40 H15
34 Flat washer, special H17
35 Retracting lever A4
36 Lever pivot stud H16
37 Setscrew, steel fluted socket cup 10–32 by 3/16-inch H38
38 Setscrew H37
39 Soundhead stabilizer A11
40 Machine screw H6
41 Lockwasher, internal teeth No. 5 H7
42 Soundhead chassis assembly A1
43 Machine screw H8
44 Plain hexagonal nut H10
45 Lockwasher H9
46 Cable clamp MP3
47 Machine screw H3
48 Plain hexagonal nut H5
49 Lockwasher H4
50 Cable clamp bracket MP1
51 Wiring harness W51
52 Plug connector W51P55
53 Plug connector P59
54 Insulating sleeve
55 Tube shield E51
56 Electron tube V51
57 Plain hexagonal nut H33
58 Lockwasher, internal teeth No. 5 H35
59 Machine screw H34
60 Flat washer, special H36
61 Lug terminal
62 Turret and socket assembly A10
63 Machine screw H40
64 Plain hexagonal nut H39
65 Transformer assembly A12 (includes items 63, 64, and 65A)
65A Input transformer A12T51
66 Machine screw H1
67 Lockwasher, internal teeth No. 5 H2
68 Terminal block TB51
69 Exciter lamp cable assembly W52
70 Soundhead mounting plate MP6
71 Lamp cover assembly A2
72 Cable W52W2
73 Cable W52W1
74 Not used.
75 Lead W52W3–W4
76 Lead W51W1–W4
77 Cable W5A1–A2
78 Cable tie W51H1
79 Cable assembly W1 (consists of items 22 and 22A)
80 Spacer A1MP10
81 Plate MP8
82 Plate MP9
83 Screw H22
84 Grommet A10MP1
85 Grommet A10MP2
86 Lead A10W1
87 Retainer A10MP3
88 Socket shield A10E1
89 Socket A10A1TB52
90 Capacitors A10A1TB52C51–C54
91 Resistors A10A1TB52R51–R59

Figure 42. Soundhead assembly, exploded view.

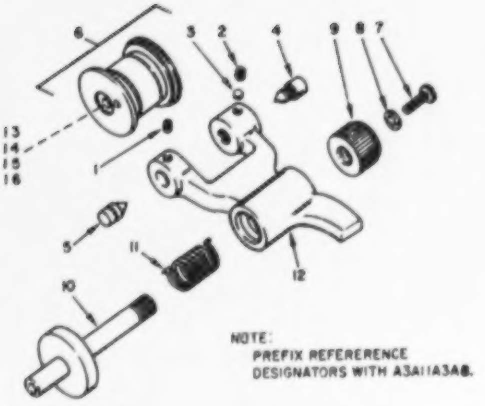


TM6730-210-35-49

Note. Prefix reference designators with A3A11A3A7 or A3A11A3A9.

1	Setscrew, steel fluted socket cup, 5–40 by ¼-inch H1
2	Jockey roller shaft MP6
3	Roller, upper MP5
4	Sleeve bearing MP1
5	Sleeve bearing MP2–3
6	Roller housing, upper MP4
6A	Roller housing, lower MP4

Figure 43. Jockey roller assemblies, exploded view.



EL6730-210-35-C3-TM-50

Note. Prefix reference designators with A3A11A3A8.

1	Setscrew, steel fluted socket cone No. 5–40 by .135-inch H3
2	Setscrew, steel fluted socket cup No. 5–40 by .135-inch H4
3	Locking slug MP1
4	Adjustable pivot pin MP5
5	Pivot pin MP4
6	Impedance roller assembly A1
7	Machine screw, binding head No. 4–40 by ⅜-inch H1
8	Lockwasher (MS35333–36) H2
9	Roller adjusting nut MP3
10	Roller mounting stud MP7
11	Torsion spring MP6
12	Impedance roller housing MP2
13	Bearing A1MP1
14	Bearing A1MP2
15	Roller A1MP3
16	Wick A1MP4

Figure 44. Impedence roller, exploded view.

c. Loosen the setscrews (17) in each of the sprockets (18 and 19), and disassemble the sprockets, the fiber washers (20), the flat washers (21), the rewind pulley (22), and the takeup pulley (23) from the mechanism plate. Remove the fiber washers (24) and flat washers (25) from the pulley shafts. Refer to paragraph 82 for disassembly procedures for the rewind and the takeup pulleys. Loosen the setscrews (26) and remove the drive sprocket (27).

d. Remove the machine screws (28) and the lockwashers (29) that fasten the loopsetter bracket (30) to the rear of the mechanism plate and disassemble the bracket from the loopsetter rod (31).

e. Remove the machine screws ((1) and (2), fig. 49) and the lockwashers (3) and lift off the mechanism gear cover (4) and the gear cover gasket (5). Remove the retaining ring (6), the spacer (7), and the double idler gear (8) from the double idler gear stud (9). Note the felt lubricating wick (10) in the stud. Remove the retaining ring (11) and the single idler gear (12) from the single idler gear stud (13).

f. Remove the sleeve (14) from the shaft of the feed sprocket gear assembly (15) and disassemble the three sprocket gear assemblies (15, 16, and 17) from the mechanism plate. The two soundhead jockey roller stop studs (18) and lockwasher (19) need not be unscrewed from the mechanism plate unless they are bent or otherwise damaged.

g. Unhook the loopsetter tension spring (20) from the spring stud (21) and the loopsetter arm assembly (23). Loosen the setscrew (22 and disassemble the arm and the loopsetter assembly (24) from the mechanism plate. Unscrew the knurled knob (25) and separate the loopsetter roller (26) from the loopsetter (27).

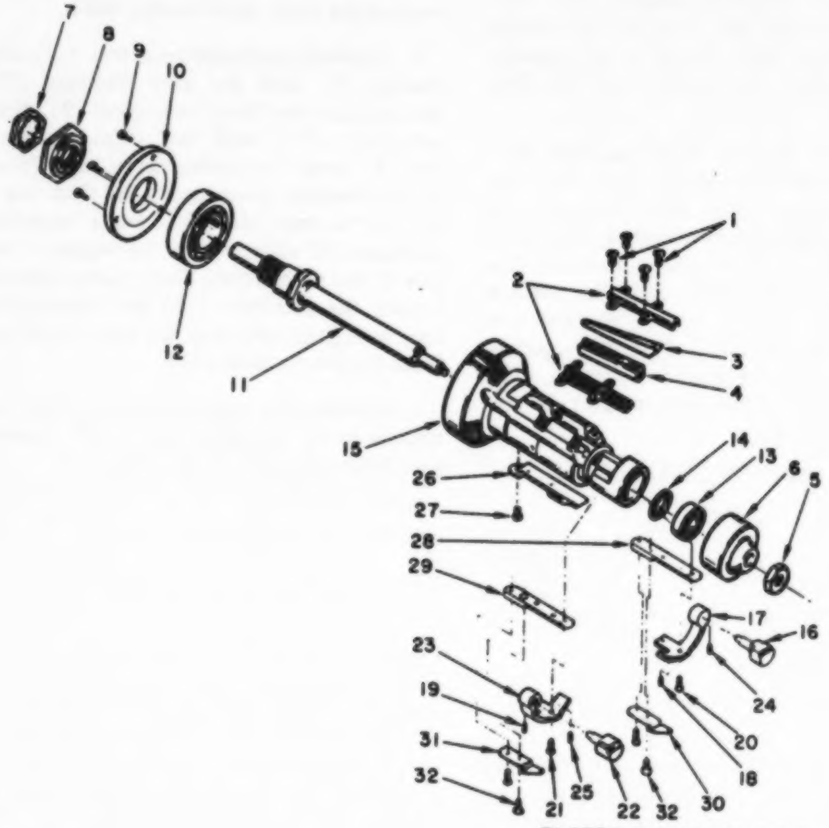
h. Remove the machine screws (28) and the lockwashers (29) that hold the film slack adjuster assembly (30). Refer to paragraph 83 for disassembly procedures for the film slack adjuster.

i. Unhook the floating idler spring (31) from the idler spring bracket (34) and the floating idler tension lever (36). Remove the machine screw (32), the lockwasher (33), and the idler spring bracket (34). Remove the special machine screw (35) and disassemble the floating idler tension lever (36) and the floating idler assembly (37) from the mechanism plate. Remove the machine screws (38) that secure the two idler rollers (39) to the floating idler arm (40).

j. Loosen the setscrews ((1), fig. 50) and remove the rewind sprocket (2). Remove the machine screws (3) and the lockwashers (4) that fasten the drive shaft bracket (5) to the mechanism plate subassembly (49).

k. Remove the machine screw (6), the lockwasher (7), and the gear lockring (8), and disassemble the front cam gear (9), the front camshaft (11), and the shim washers (10 and 12) from the mechanism plate. Temporarily reassemble these parts so that the shims do not become lost. The same quantity and thickness of shims must be replaced on each side of the mechanism plate during reassembly. Loosen the setscrew (13) and disassemble the rear cam gear (14) and the rear camshaft (15) from the mechanism plate.

l. Remove the machine screws (16) and the shuttle cover mounting plate (17). Loosen the setscrews (18 and 20) and dis-

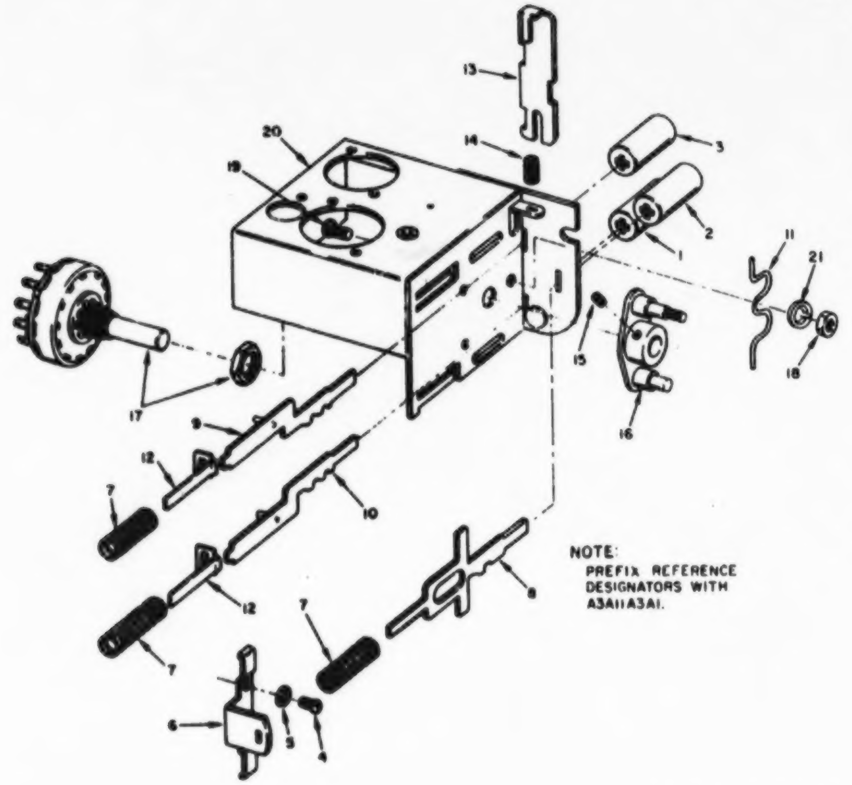


EL6730-210-35-C3-TM-51

Note. Prefix reference designators with A3A11A3A11.

1 Machine screw H11
2 Light pipe bracket H10
3 Light pipe prism MP9
4 Prism mount MP4
5 Special nut H1
6 Sound drum MP3
7 Self-locking nut H13
8 Bearing locknut MP7
9 Machine screw H16
10 Bearing lock plate MP8
11 Stabilizer shaft MP10
12 Ball bearing, large MP1
13 Ball bearing, small MP2
14 Thrust washer MP14
15 Stabilizer housing MP5
16 Eraser, magnetic PU52
17 Yoke H2
13 Setscrew H3
19 Setscrew H7
20 Screw H5
21 Screw H6
22 Head, sound reproducer PU51
23 Yoke H6
24 Setscrew H4
25 Setscrew H8
26 Latch MP6
27 Shoulder screw H12, H15
28 Plate assembly A1
29 Plate assembly A2
30 Spring MP11
31 Spring MP12–MP13
32 Screw H14

Figure 45. Soundhead stabilizer assembly, exploded view.



NOTE:
PREFIX REFERENCE DESIGNATORS WITH A3A11A3A1.

EL6730-210-35-C3-TM-52

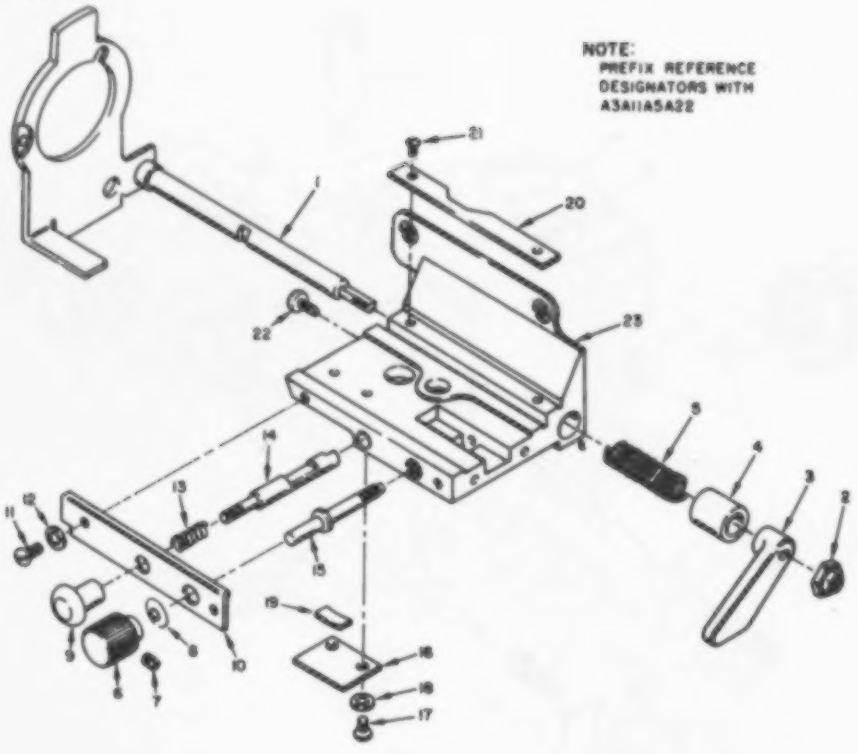
1 Record pushbutton ~~(O-48)~~ (MP7)
2 Magnetic pushbutton ~~(O-46)~~ (MP8)
3 Optical pushbutton ~~(O-47)~~ (MP9)
4 Machine screw ~~(H68)~~ (H2)
5 Lockwasher, internal teeth No. 3 ~~(H69)~~ (H3)
6 Selector arm clamp ~~(A52)~~ (MP2)
7 Compression spring ~~(O-49)~~ (MP12-13-14)
8 Magnetic selector arm ~~(O-50)~~ (MP1)
9 Optical selector arm ~~(O-52)~~ (A2)
10 Record selector arm ~~(O-51)~~ (A3)
11 Snubber spring ~~(O-53)~~ (MP3)
12 Spring strap ~~(O-54)~~ (MP4-5)
13 Release and locking plate ~~(A53)~~ (MP6)
14 Compression spring ~~(O-55)~~ (MP11)
15 Setscrew, steel fluted socket cup 5-40 by 1/8-inch ~~(H70)~~ (H1)
16 Switchplate ~~(A54)~~ (A1)
17 Rotary switch, with mounting nuts (S51)
18 Plain hexagonal nut ~~(H64)~~ (H4)
19 Machine screw ~~(H15)~~ (H5)
20 Chassis subassembly ~~(A55)~~ (A4)
21 LocKwasher (H6)

Figure 46. Soundhead chassis Assembly, *exploded view.*

assemble the thrust collar (19), the flat washer (22), and the mechanism drive gear (21) from the mechanism drive shaft (23).

m. Loosen the setscrews (24), remove the shutter gear (25), and withdraw the shutter assembly (26) from the mechanism plate. If necessary, remove the three machine screws (27) that hold the shutter (28) to the shutter shaft (29).

n. Loosen the setscrews (30) in the framer shaft locking collar (31). Remove the three machine screws (32) and the lockwashers (33) and withdraw the framer shaft bracket (34) and the locking collar from the framer shaft (39). Remove the machine screw (35), the spring tension washer (36), and the flat washer (37) that hold the pivot bar assembly (38) to the mechanism plate, and unscrew the framer shaft (39) from the pivot bar assembly.



1 Pressure plate holder assembly ~~(A97)~~ (A1)
2 Self-locking nut, 10-32 ~~(H121)~~ (H1)
3 Film gate closing handle ~~(A147)~~ (MP1)
4 Holder rod collar ~~(O-126)~~ (MP11)
5 Compression spring ~~(O-129)~~ (MP14)
6 Focusing knob ~~(O-130)~~ (MP4)
7 Setscrew, steel fluted socket cup 5-40 by 1/8-inch ~~(H46)~~ (H2)
8 Spring washer ~~(H122)~~ (H8)
9 Film gate release knob ~~(O-131)~~ (MP3)
10 Side rail ~~(A145)~~ (MP8)
11 Machine screw, steel roundhead 4-36 by 3/16-inch ~~(H62)~~ (H5)
12 Lockwasher ~~(H20)~~ (H6)
13 Compression spring ~~(O-133)~~ (MP13)
14 Pressure plate release rod ~~(O-134)~~ (MP10)
15 Focusing pinion ~~(O-135)~~ (MP2)
16 Spring retaining plate ~~(A149)~~ (MP7)
17 Machine screw, steel roundhead 4-36 by 3/16-inch ~~(H62)~~ (H3)
18 Lockwasher ~~(H20)~~ (H4)
19 Flat spring ~~(O-137)~~ (MP12)
20 Top rail ~~(A150)~~ (MP9)
21 Machine screw, steel roundhead 4-36 by 1/8-inch ~~(H126)~~ (H7)
22 Lens holder stop stud ~~(A151)~~ (MP6)
23 Lens holder mounting ~~(A98)~~ (MP5)

Figure 47. Lens mounting assembly, exploded view.

Remove the machine screws (40), the lockwashers (41), the flat washers (42), and the aperture plate mounting bracket (43).

o. Loosen the hexagonal nut (44) and remove the setscrew (45) to relieve the tension on the lubrication plate (46), and withdraw the lubrication plate and lubricating pad (47) from the cavity below the camshaft openings in the mechanism plate. The round lubricating wick (48) protrudes up through an opening in the roof of the cavity to supply lubricant to the front camshaft (11).

p. Refer to paragraph 97 for mechanism plate minor component reassembly instructions.

82. Takeup and Rewind Pulley Disassembly (fig. 51)

Note: The takeup pulley and the rewind pulleys are identical in construction and differ only in the manner in which the parts are assembled.

a. Remove the self-locking capnut (2) and the extruded washer (3). Hold the pulley (9) in one hand with the shaft protruding upward.

b. Carefully lift out the pulley shaft assembly (1) and observe the manner in which the clutch parts are assembled. Remove the clutch ball retainer (4), the steel balls (5), the compression spring (6), and the clutch cam (7) from the pulley.

c. Inspect the pulley bearing (8) for signs of damage or rough rotation. If defective, press the bearing from the pulley.

d. Refer to paragraph 96 for takeup pulley and rewind pulley reassembly instructions.

83. Film Slack Adjust Disassembly
(fig. 52)

a. Loosen the setscrew (3), and then remove the machine screw (1) and the retaining collar (2), the adjusting collar (4), the stop pin (5), the compression springs (6 and 8), and the film slack adjusting rod (9) from the adjusting mechanism housing (7). Do not remove the spring pin (10) unless it is damaged.

b. Refer to paragraph 95 for film slack adjuster reassembly instructions.

84. Amplifier and Speaker Disassembly
(fig. 53 and 53.1)

a. Loosen the three captive fasteners that secure the tube vent grille (1) to the amplifier housing and lift off the grille.

b. Remove the machine screws (3) and the lockwashers (4) and lift the speaker panel (2) from the amplifier assembly. Mark and unsolder the speaker cable leads (10) from the terminals on the speaker.

c. Remove the machine screws (6) and the self-locking nuts (7), then remove the speaker (5) and the speaker grille (8).

NOTE

The need for replacement of amplifier electrical components will be determined by the results of amplifier troubleshooting procedures (para 28). Follow standard unsoldering techniques when removing electrical parts. See figure 53.1.

d. Refer to paragraph 94 for amplifier and speaker reassembly instructions.

85. Projector Case Disassembly
(fig. 54)

a. Remove the self-locking nuts (1) and disassemble the carrying handle posts (2), the torsion springs (3), and the carrying handle plate (6) from the top of the case. Remove the posts from the straight pins (4) which are pressed through the carrying handle (5).

b. Remove the speed nut (7) and press the loopsetter rod knob stop (8) from the top of the case.

c. Remove the machine screws (9 and 10), the hexagonal nuts (11), and the lockwashers (12) that hold the receptacle hole cover (13) and the receptacle connectors (14 and 15) to the front of the projector case.

d. Remove the machine screws (16) and the lockwashers (17) that attach the mechanism plate support brackets (18) to the case.

e. The acoustic filters (19 and 20) and the shock absorbing pads (21) are cemented in place and need not be removed. The drawbolt strike (23) is fastened to the case with three tubular rivets (22) which must be drilled out if the strike requires replacement.

f. Refer to paragraph 93 for projector case reassembly instructions.

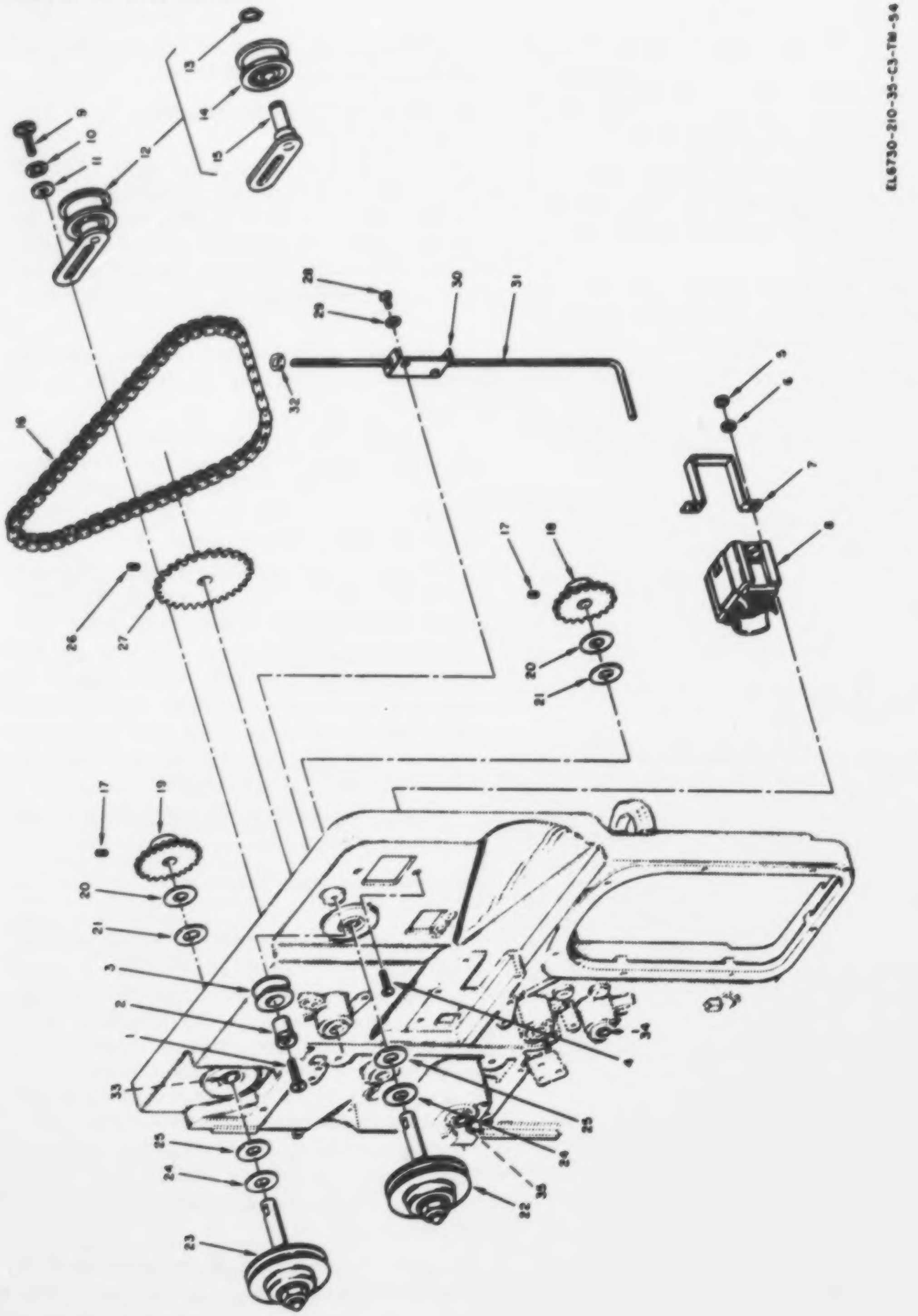
86. Projector Door Disassembly
(fig. 55)

a. Unhook the accessory retaining springs (1) from the perforations in the door.

b. The exciter lamp retaining clip (3), the fuse retaining clips (4), the drawbolt catch (7), and the reel arm storage bracket (13) are secured to the door with tubular rivets (2, 5, and 12) which must be drilled out if any of these parts are to be replaced.

c. Remove the machine screws (8), the lockwashers (9), and the flat washers (10) which attach the remaining reel arm storage bracket (11) to the door.

d. Refer to paragraph 92 for projector door reassembly instructions.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Note. **Prefix reference designators with A3A11A5, except those marked with an asterisk.**

1 Machine screw H4
2 Eccentric bearing MP3
3 Idler pulley MP25
*4 Machine screw, steel roundhead 4–36 by ⅜-inch A3A11H7
*5 Plain hexagonal nut, steel 4–36 A3A11H9
*6 Lockwasher A3A11H8
*7 Pilot lamp bracket A3A11H6
*8 Lampholder A3A11XDS102
9 Machine screw, steel binding head 8–32 by ½-inch H46
10 Lockwasher H48
11 Flat washer, special H47
12 Drive chain idler assembly A18
13 Retaining ring A18H1
14 Idler roller A18MP2
15 Idler roller arm A18MP1
*16 Drive chain MP8
17 Setscrew H70
18 Rewind sprocket MP39
19 Takeup sprocket MP38
20 Fiber washer MP61
21 Flat washer, special MP66–MP69
22 Rewind pulley assembly A29
23 Takeup pulley assembly A28
24 Fiber washer MP61
25 Flat washer, special MP66–MP69
26 Setscrew H71
27 Drive sprocket MP40
28 Machine screw, special H14
29 Lockwasher H15
30 Loopsetter bracket MP5
31 Loopsetter rod MP26
*32 Nut A3H36
33 Bearing A27MP1–MP4
34 Bearing A27MP5–MP12
35 Bearing A27MP13–14

Figure 48. Upper mechanism plate components, exploded view.

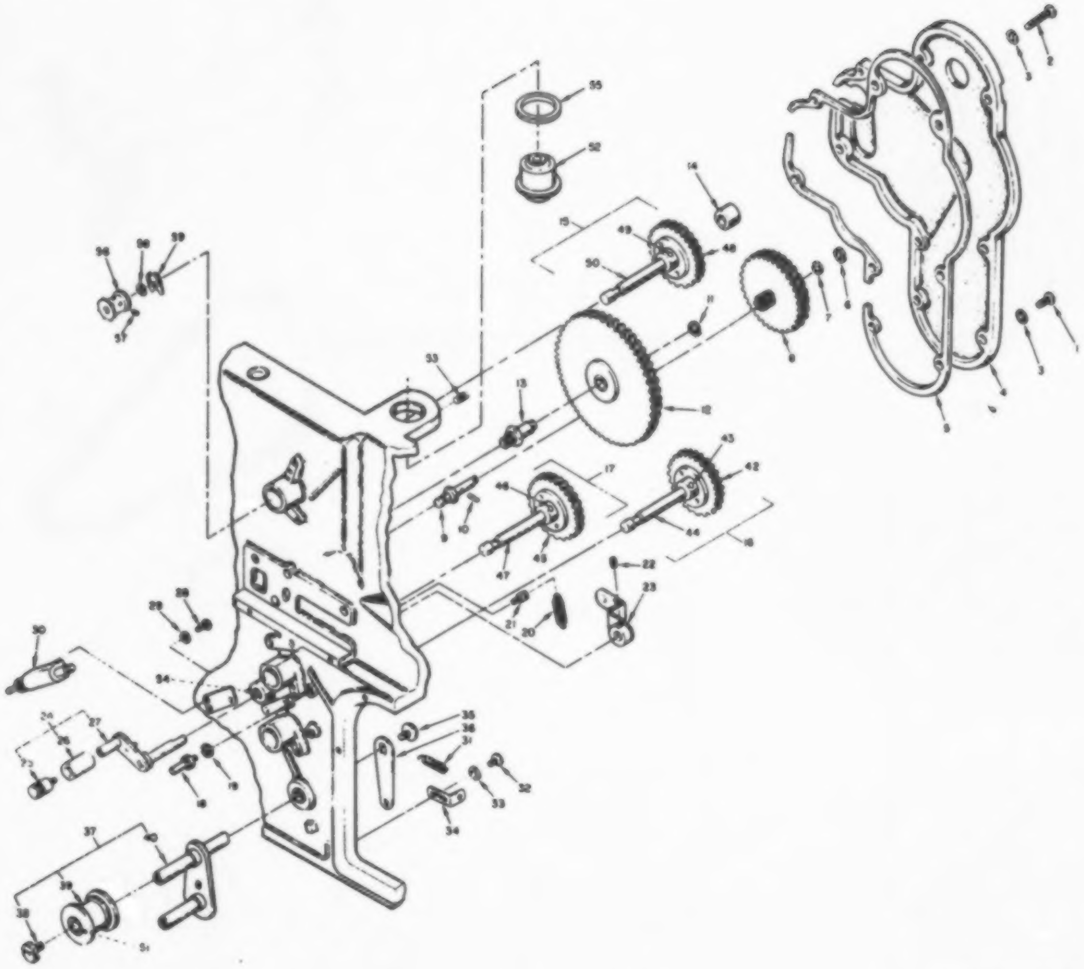

Figure 49. Lower mechanism plate components, exploded view.

Note. Prefix reference designators with A3A11A5.

1 Machine screw H26
2 Machine screw H27
3 Lockwasher H28
4 Mechanism gear cover MP13
5 Gear cover gasket MP15
6 Retaining ring H31
7 Spacer H32
8 Double idler gear A8
9 Double idler gear stud A38
10 Lubricating wick A38MP1
11 Retaining ring H35
12 Single idler gear A10
13 Single idler gear stud H36
14 Sleeve MP2
15 Feed sprocket gear assembly A16
16 Sound sprocket gear assembly A14
17 Takeup sprocket gear assembly A15
18 Jockey roller stop stud MP48-49
19 Lockwasher H27
20 Loopsetter tension spring MP36
21 Spring stud MP50
22 Setscrew, steel fluted socket cup 5-40 by ⅛-inch H2
23 Loopsetter arm assembly A1
24 Loopsetter assembly (includes items 25, 26, and 27) A21
25 Knurled knob A21MP1
26 Loopsetter roller A21MP2
27 Loopsetter A21A1
28 Machine screw, steel roundhead 4-36 by 5/16-inch H68
29 Lockwasher H69
30 Film slack adjuster assembly A37
31 Floating idler spring MP37
32 Machine screw, special H5
33 Lockwasher H6
34 Idler spring bracket MP4
35 Machine screw, special H49
36 Floating idler tension lever MP17
37 Floating idler assembly (includes items 38, 39, and 40) A19
38 Machine screw, special A19H1-A19H2
39 Idler roller A19A2-A3
40 Floating idler arm A19A1
41 Not used
42 Gear A14MP1
43 Pin A14H1
44 Shaft A14MP2
45 Gear A15MP1
46 Pin A15H1
47 Shaft A15MP2
48 Gear A16MP1
49 Pin A16H1
50 Shaft A16MP2
51 Bearing A19A2MP1
52 Mount MP18-19
53 Setscrew H51
54 Bearing A27MP16-17
55 Spacer MP32-33
56 Sprocket wheel MP42-43-44
57 Setscrew H73
58 Washer H18
59 Stop MP45-MP47

Figure 49—Continued.

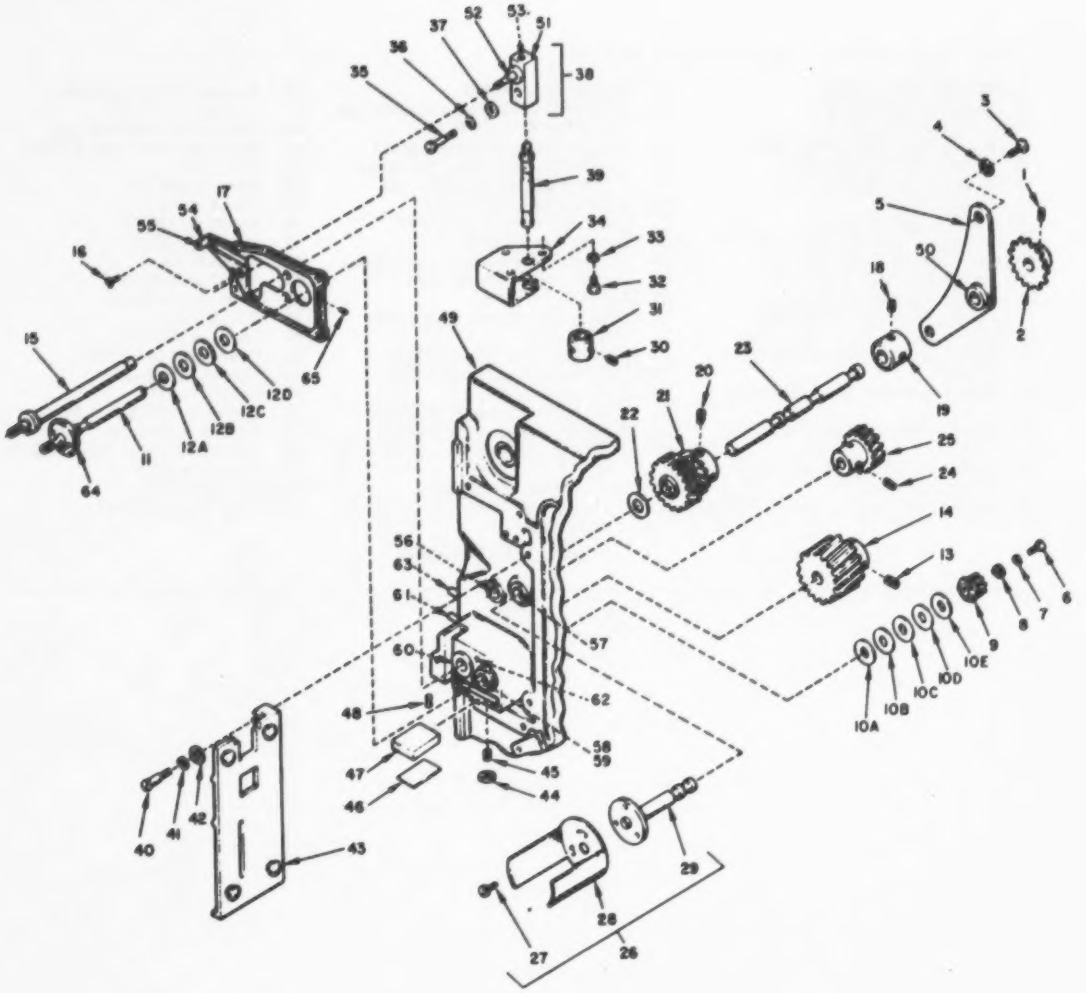

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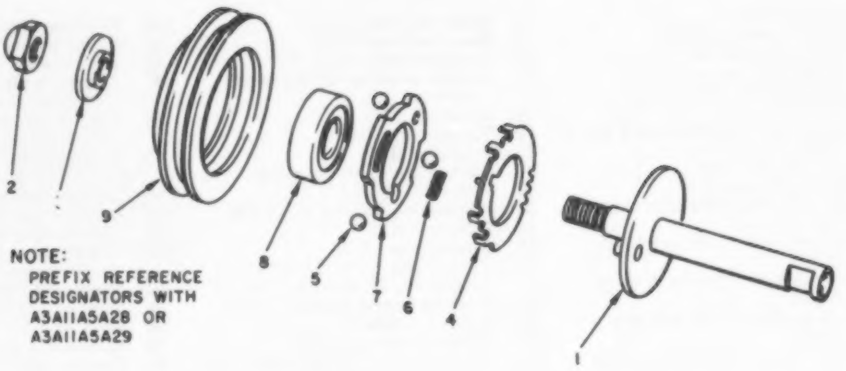
Figure 50. Central mechanism plate components, exploded view.

Note. Prefix reference designators with A3A11A5.

1	Setscrew H70
2	Rewind sprocket MP38
3	Machine screw H10
4	Lockwasher assembly H11
5	Drive shaft bracket A4
6	Machine screw, special H38
7	Lockwasher, internal teeth No. 5 H39
8	Gear lockring H40
9	Front cam gear A12
10A	Shim washer, 0.002 inch thick MP55
10B	Shim washer, 0.003 inch thick MP56
10C	Shim washer, 0.010 inch thick MP54
10D	Shim washer, 0.020 inch thick MP53
10E	Shim washer, 0.031 inch thick MP61
11	Front camshaft A30
12A	Shim washer, 0.002 inch thick MP57
12B	Shim washer, 0.003 inch thick MP58
12C	Shim washer, 0.005 inch thick MP59
12D	Shim washer, 0.0010 inch thick MP60
13	Setscrew H37
14	Rear cam gear A11
15	Rear camshaft A31
16	Machine screw H56
17	Shuttle cover mounting plate A24
18	Setscrew H18
19	Thrust collar MP9
20	Setscrew H33
21	Mechanism drive gear A9
22	Flat washer H34
23	Mechanism drive shaft MP28
24	Setscrew H41
25	Shutter gear A13
26	Shutter assembly (includes items 27, 28, and 29) A35
27	Machine screw, special A35A1
28	Shutter A35MP2
29	Shutter shaft A35MP1
30	Setscrew, steel fluted socket cup 5-40 by ⅛-inch H19
31	Framer shaft locking collar MP10
32	Machine screw H16
33	Lockwasher, internal teeth No. 3 H17
34	Framer shaft bracket MP6
35	Machine screw, special H65
36	Spring tension washer H67
37	Flat washer H66
38	Pivot bar assembly A2
39	Framer shaft MP29
40	Machine screw, special H7
41	Lockwasher H9
42	Flat washer H8
43	Aperture plate mounting bracket assembly A3
44	Plain hexagonal nut, steel No. 6-32 MP20
45	Setscrew, Bristol socket cup 6-32 by ⅜-inch MP27
46	Lubrication plate MP24
47	Lubricating pad MP71
48	Lubricating wick MP70
49	P/o mechanism plate subassembly A27
50	Bearing A4MP1
51	Framer bar A2MP1
52	Stud A2MP2
53	Setscrew A2H1
54	Bracket A24MP1
55	Rivet A24H1
56	Bearing A27MP15
57	Bearing A27MP18
58	Bearing A27MP19
59	Bearing A27MP20
60	Bushing A27MP21
61	Pin A27MP22
62	Plug A27MP23
63	Stud A27MP24
64	Pin A30MP1
65	Setscrew H57

Figure 50—Continued.

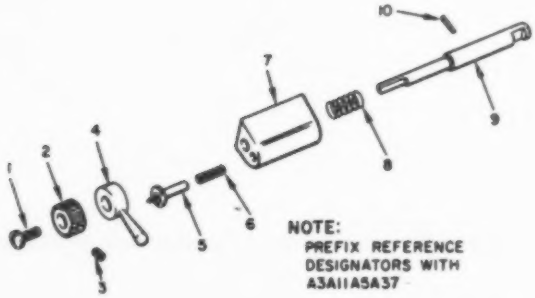


NOTE:
PREFIX REFERENCE
DESIGNATORS WITH
A3A11A5A28 OR
A3A11A5A29

EL6730-210-35-C3-TM-57

1 Pulley shaft assembly ~~(A141)~~ (A1)
2 Self-locking capnut, special ~~(H111)~~ (H1)
3 Extruded washer ~~(H112)~~ (H2)
4 Clutch ball retainer ~~(O 104)~~ (MP5)
5 Steel ball ~~(O 105)~~ (MP1)
6 Compression spring ~~(O 106)~~ (MP6)
7 Clutch cam ~~(O 107)~~ (MP3)
8 Ball bearing ~~(O 108)~~ (MP2)
9 Pulley ~~(O 109)~~ (MP4)

Figure 51. Takeup and rewind pulleys, exploded view.

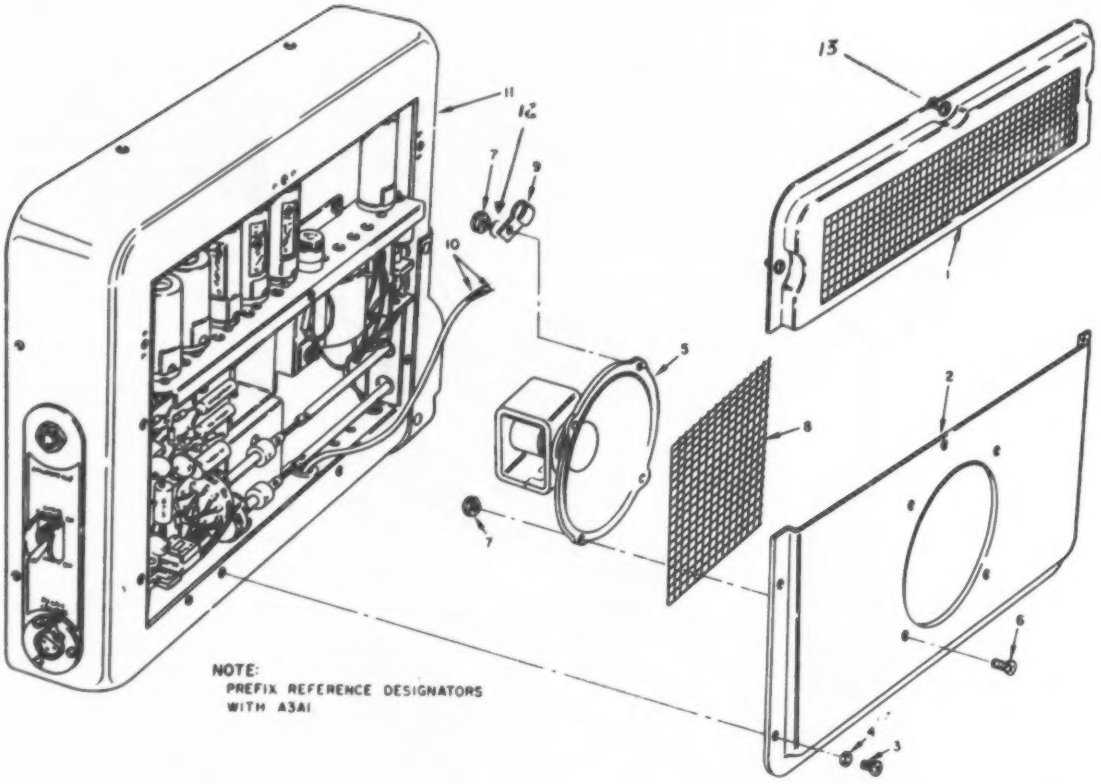


NOTE:
PREFIX REFERENCE
DESIGNATORS WITH
A3A11A5A37

EL6730-210-35-C3-TM-58

1 Machine screw, steel truss head
3-48 by 1/4-inch ~~(H129)~~ (H1)
2 Retaining collar (MP2)
3 Setscrew, steel fluted socket cup
5-40 by 1/8-inch ~~(H46)~~ (H2)
4 Adjusting collar ~~(O 163)~~ (MP1)
5 Stop pin ~~(O 164)~~ (MP4)
6 Compression spring ~~(O 165)~~ (MP7)
7 Adjusting mechanism housing ~~(A108)~~ (MP3)
8 Compression spring ~~(O 167)~~ (MP6)
9 Film slack adjusting rod ~~(O 166)~~ (MP5)
10 Spring pin ~~(H128)~~ (H3)

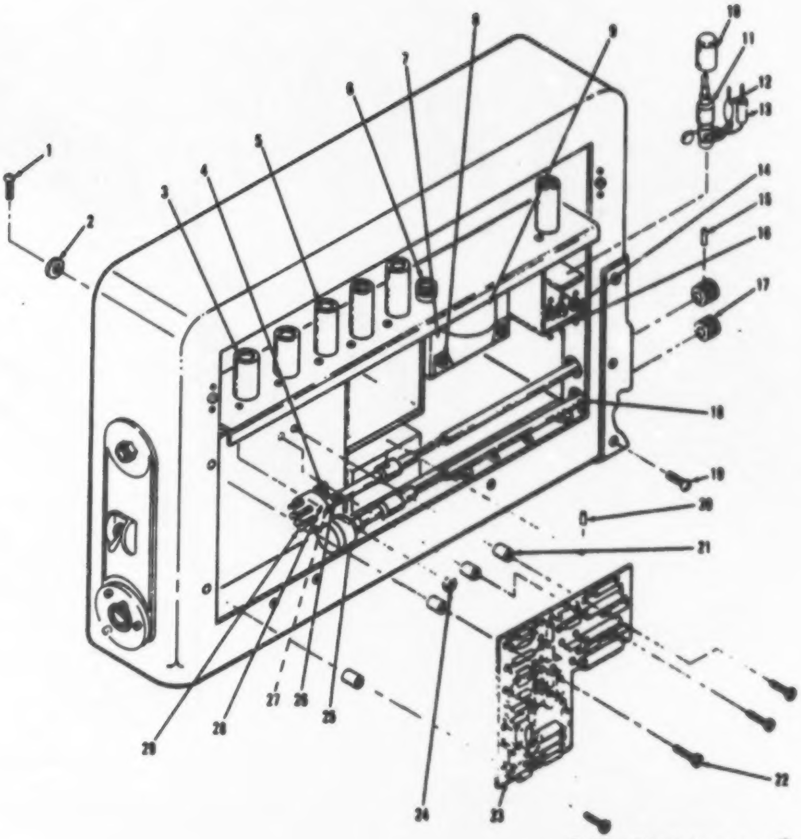
Figure 52. Film slack adjuster assembly, exploded view.



EL6730-210-35-C3-TM-59

1 Tube vent grille ~~(A201)~~ (A3)
2 Speaker panel ~~(A202)~~ (MP4)
3 Machine screw ~~(H201)~~ (H16)
4 Lockwasher ~~(H202)~~ (H17)
5 Speaker (LS201)
6 Machine screw ~~(H203)~~ (H51)
7 Self-locking nut No. 6-32 ~~(H204)~~ (H30)
8 Speaker grille ~~(A203)~~ (MP11)
9 Cable clamp ~~(O 201)~~ (MP32)
10 Speaker cable leads (1W1)
11 Amplifier assembly
12 Washer H52
13 Fastener A3H1

Projector -
Figure 53. Amplifier and speaker, exploded view.

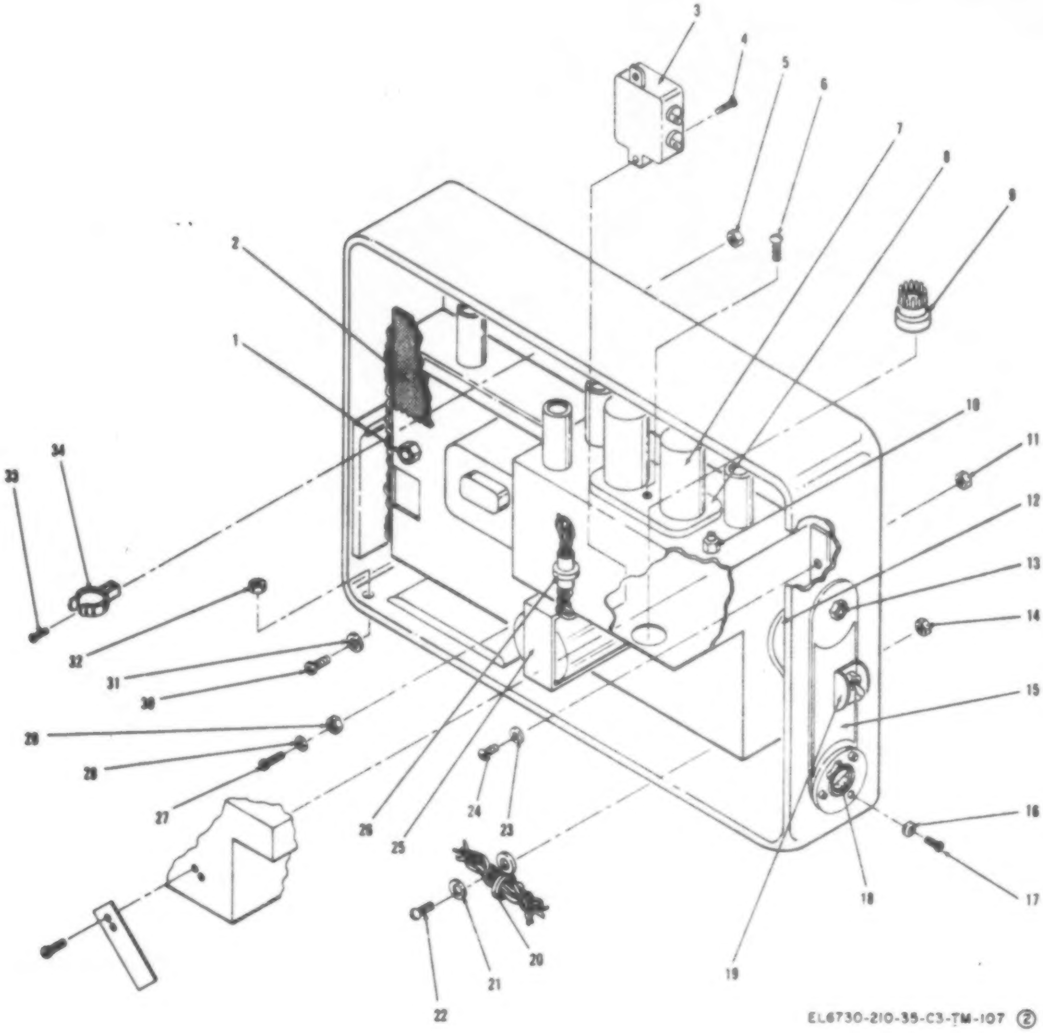


EL6730-210-35-C3-TM-107 ①

Note. Prefix reference designators with A3A1.

1 Screw H11
2 Washer H12
3 Shield E1-E2
4 Bracket MP1-MP2
5 Shield E3-E7
6 Fuse post XF201
7 Plate MP16
8 Washer H67
9 Transformer T202
10 Shield MP20
11 Coil assembly A9
12 Resistor R230
13 Socket XV201
14 Capacitor C220-C222
15 Setscrew H34
16 Washer H9
17 Knob MP14-MP15
18 Shaft MP9-MP10
19 Screw H73
20 Setscrew H70
21 Spacer MP29-MP31
22 Screw H72
23 Strip assembly A2
24 Nut H10
25 Pot assembly A5
26 Nut H53
27 Washer H55
28 Washer H54
29 Switch assembly A7

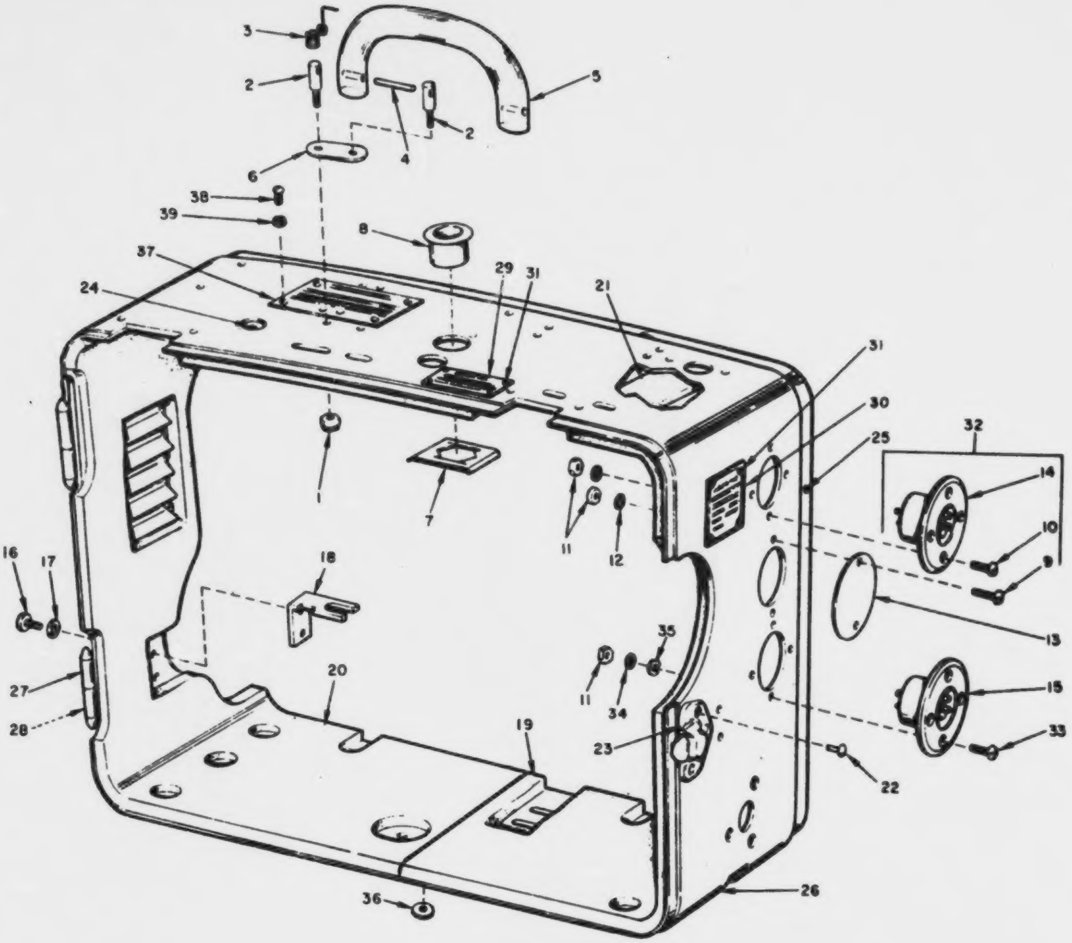
Figure 53.1. Projector-amplifier assembly, front side, exploded view.



Note. **Prefix reference designators with A3A1.**

1 Receptacle J204
2 Screen MP12
3 Capacitor C224
4 Screw H11
5 Nut H74
6 Screw H38
7 Capacitor C214
8 Clamp MP19
9 Socket assembly A6
10 Pot assembly A4
11 Nut H5
12 Cable W1
13 Jack J202
14 Nut H5
15 Panel MP17
16 Washer H29
17 Screw H28
18 Receptacle J203
19 Guard MP13
20 Strap H7
21 Washer H8
22 Screw H6
23 Washer H8
24 Screw H6
25 Transformer assembly A8
26 Cable tie H63
27 Screw H60
28 Washer H64
29 Nut H58
30 Screw H14
31 Washer H15
32 Nut H13
33 Screw H75
34 Clip MP7

Figure 53.2 Projector-amplifier assembly, rear side, exploded view.

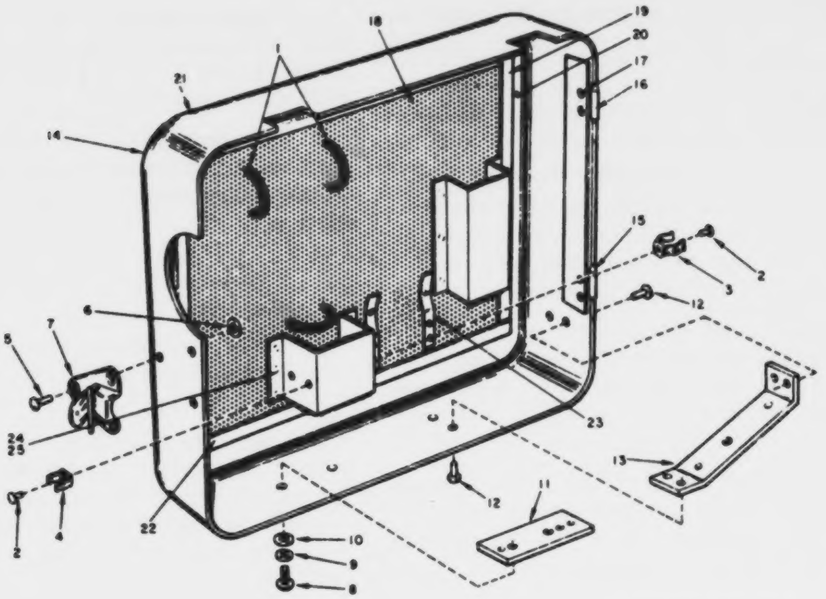


EL6730-210-35-C3-TM-60

Note. Prefix reference designators with A3A6, except those marked with an asterisk.

1	Self-locking nut, 8–32 H3
2	Carrying handle post H5
3	Torsion spring H7
4	Straight pin, steel H4
5	Carrying handle MP6
6	Carrying handle H6
7	Speed nut H17
8	Loopsetter rod knob stop MP18
*9	Machine screw, steel round-head 4–36 by 3/8-inch A3H22
*10	Machine screw, steel oval head 4–36 by 7/16-inch A3H16
*11	Plain hexagonal nut, steel 4–36 A3H15
*12	Lockwasher A3H17–A3H23
*13	Receptacle hole cover A3MP10
*14	Receptacle connector A3A7J103
*15	Receptacle connector A3J105
16	Machine screw H1
17	Lockwasher H2
18	Mechanism plate support bracket MP1–MP2
19	Acoustic filter, front MP4
20	Acoustic filter, rear MP3
21	Shock absorbing pad MP8–MP11
22	Tubular rivet H18
23	Drawbolt strike MP19
24	Bushing A2MP1–MP2
25	Bushing A2MP3–MP8
26	Center case A2A1
27	Hinge A2MP9–MP10
28	Rivet A2H1
29	Plate MP12
30	Plate MP13
31	Screw H13–H22
*32	Connector assembly A3A7
*33	Screw A3H18
*34	Flatwasher A3H19
*35	Lockwasher A3H20
*36	Button A3MP7
*37	Nameplate A3MP16
*38	Screw A3H30
*39	Lockwasher A3H31

Figure 54. Projector center case assembly, exploded view.



EL6730-210-35-C3-TM-61

Note. Prefix reference designators with A3A8 except item 1.

1 Accessory retaining spring A3MP18, A3MP19, A3MP20
2 Tubular rivet H4
3 Exciter lamp retaining clip MP5
4 Fuse retaining clip MP3–MP4
5 Tubular rivet H2
6 Flat washer H3
7 Drawbolt catch MP2
8 Machine screw H6
9 Lockwasher H8
10 Flat washer H7
11 Reel arm storage bracket MP9
12 Tubular rivet H1
13 Reel arm storage bracket MP1
14 Door A1
15 Hinge leaf A1MP1
16 Hinge leaf A1MP2
17 Rivet A1H1–A1H2
18 Filter MP6
19 Frame MP7
20 Rivet H5
21 Holder MP8
22 Filter holder assembly A2
23 Spring MP10
24 Rivet H9
25 Washer H10

Figure 55. Projector door assembly, exploded view.

Section II. INSPECTION, REPAIR, AND LUBRICATION

87. General Inspection and Repair Instructions

a. Except for the possible straightening of structural parts and the rethreading of tapped holes or threaded shafts to correct burred or stripped conditions, it is impractical to attempt the repair of projector parts. Damaged parts should be replaced.

b. All film path parts which come in contact with the film during operation such as the guide rollers, the film sprockets, the film shoes, the aperture plate, and the pressure plate must be carefully inspected for scratches or metal burrs which might scratch the film. If these defects are not too prominent, they sometimes can be removed by polishing lightly with crocus cloth. If polishing fails to remedy the defect, the part must be replaced.

c. Inspect all gears and pinions for chipped or missing teeth and replace such damaged parts.

d. Inspect all optical parts such as reflectors, condensers, and lens surfaces for chips, cracks, tarnishing, or excessive scratching. Replace defective parts.

e. Check the condition of the sapphire jewel inserts in both aperture plate guide rails.

NOTE

Wear of these jewels is not a factor; however, a chipped jewel can scratch the film and this condition will require replacement of the guide rail.

f. Inspect soldered connections for secure soldering and all leads for cut or frayed insulation. Solder loose connections in accordance with standard soldering techniques and practices. Replace cut or broken leads.

g. Inspect ball bearings and needle bearings by spinning them rapidly. Bearings must spin freely and smoothly. If a bearing appears unusually rough when spun, replace it.

88. Drive Motor Inspection and Repair
(fig. 38)

a. Check the field winding for continuity with Multimeter ME-26(*)/U and replace the winding if defective.

b. Check the armature for short circuits. Inspect the armature winding for signs of burning, charring, or serious nicks or breaks. Inspect the commutator for signs of unusual wear. A badly worn commutator can cause excessive sparking at the brushes and loss of output power. Clean the commutator with crocus cloth.

c. Check the motor and governor brushes for wear and for broken pigtails or springs. Motor brushes less than 3/8 of an inch long and governor brushes less than 3/16 of an inch long must be replaced. Also replace brushes that have broken pigtails or springs.

d. Check the sliprings at the back of the governor for indication of a permanent open or short. The resistance on the multimeter should be zero. Open the governor contacts with the finger; the resistance now should be infinite. Inspect contacts for pitting; clean with No. 00 sandpaper or with crocus cloth.

e. Check capacitors C107, C108, C109, and C112 with the multimeter for leaks or shorts. Check resistor R105 for proper resistance value (100 ohms ±5 percent).

f. Check the armature bearings. The bearings must spin freely and smoothly. If either bearing appears to be rough when spun, replace it.

89. Ventilation Motor Inspection and Repair
(fig. 40)

a. Check the field winding for continuity with Multimeter ME-26(*)/U and replace the winding if faulty.

b. Check the armature for short circuits. Inspect the armature winding for signs of burning, charring, or serious nicks or breaks. Inspect the commutator for signs of unusual wear and replace if necessary. Clean the commutator with crocus cloth.

c. Check the motor brushes for broken springs and for wear. Replace brushes if springs are broken or if brush is worn to less than 1/4 of an inch long.

d. Inspect the blower wheel for bent or broken blades. Straighten bent blades as necessary; replace the blower wheel if blades are broken.

e. Check capacitors C104 and C105 with the multimeter for leaks or shorts and replace, if necessary.

f. Check the armature bearings. The bearings must spin freely and smoothly. If either bearing appears to be rough when spun, replace it.

90. Cleaning Instructions

a. Optical Components. All optical components should be handled by their edges in order to avoid leaving fingerprints on glass surfaces. It is possible for fingerprints to be etched into the glass surface by the heat of the projection lamp. Clean these parts by first removing loose dust or lint with a soft camel's-hair brush or by blowing air across the surface with a syringe bulb; breathe on the glass surface and polish it with lens tissue. If oil, grease, or fingerprints are present on the surface, use 1 or 2 drops of lens cleaner and polish with lens tissue.

CAUTION

The condenser lenses (fig. 50) are coated with magnesium fluoride to improve their light transmission qualities. Be especially careful not to touch coated surfaces.

b. Film Path Components. Those parts which contact the film during operation such as the film guide rollers, the film sprockets, the film shoes, the aperture plate, and the pressure plate sometimes pick up a deposit of film emulsion. A brisk polishing with a soft cloth will usually remove the emulsion from the part; if it does not, use the aperture brush or the pointed end of an orangestick to loosen the emulsion; rub the part with a soft cloth dampened with pure grain alcohol.

Caution: **Under no circumstances should metal be used to scrape hardened dirt or film emulsion from film path components. The resultant scratches may seriously damage the film during operation.**

c. *Electrical Components*. Clean all electrical components such as armatures, field windings, relays, and switches by first blowing away all dust and loose dirt with a low-pressure jet of dry compressed air. Wipe the part with a dry, lint-free cloth.

d. *Other Mechanical Parts*. All other mechanical parts (except ball and roller bearings) can be cleaned with cleaning compound. Wipe the part with a cloth dampened in the cleaning compound, or place the parts in a pan containing the cleaning compound. When all old grease has been dissolved, dry the part with a low-pressure jet of dry compressed air or with a clean, lint-free cloth.

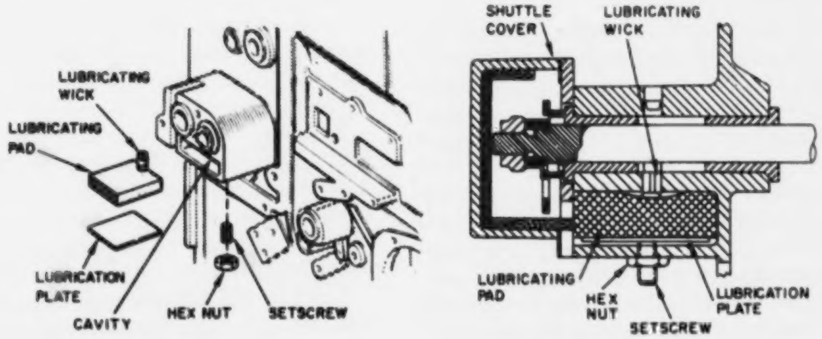
91. Lubrication

a. *Intermittent Mechanism* (fig. 56) All projector bearings are prelubricated and require no further lubrication. The intermittent mechanism is supplied with regulated lubricant by a wick lubricating system. The wick lubricating system is located in the cavity beneath the shuttle camshafts and in the shuttle mechanism cover.

(1) Remove the hexagonal nut and the setscrew (A, fig. 56).
(2) Use tweezers and the fingers to remove the lubricating wick, the lubricating pad, and the lubrication plate.
(3) Clean and dry the parts removed in (1) and (2) above.
(4) Immerse the lubricating wick, the lubricating pad, and the shuttle cover (B, fig. 56) in Lubricating Oil, General Purpose (2135). Drain excess oil.
(5) Replace the lubricating wick, the lubricating pad, and the lubrication plate.
(6) Replace the setscrew. Tighten the setscrew just enough to cause the lubrication plate to apply a slight pressure against the lubricating pad. Replace and tighten the hexagonal nut.

b. *Gears*. Speck all gear teeth sparingly with Grease, Automotive and Artillery (GAA) during reassembly.

c. *Film Shoes* (fig. 31). Place a drop of oil (2135) on the tips of the pivot screws



A. EXPLODED VIEW

B. ASSEMBLED VIEW

Figure 56. Oil wick lubricating system.

(10) and film shoe plunger (13) before assembling the film shoe.

d. Impedance Roller (fig. 44). Apply a light film of Grease, Aircraft and Instrument (GL) to the roller mounting stud (10) and the bearing surface of the roller adjusting nut (9). Saturate the felt wick inside the impedance roller (6) with oil (2135).

e. Motor Gear Housing (fig. 38). Put 7 grams of grease (GL) into the gear housing (8) through the bearing opening before assembling the gear housing to the motor. Seven grams is equal to a cylinder of grease 1 inch in diameter by 1/2 inch thick.

f. Counter Drive Mechanism (fig. 36). Place 1 drop of oil (2135) on the bearing surfaces at each end of the output shaft (20) and 1 drop between the upper end of the ratchet arm (27) and the cam of the cam and gear (5) after assembly.

g. Lens Mounting (fig. 25). Place a light coating of grease (GL) on the friction surfaces of all moving parts of the lens mounting (52).

Section III. PROJECTOR REASSEMBLY

92. Projector Door Reassembly
(fig. 55)

a. Secure the angled reel arm storage bracket (13) to the door with the tubular rivets (12). Secure the flat reel arm storage bracket (11) to the door with the machine screws (8), the lockwashers (9), and the flat washers (10).

b. Fasten the drawbolt catch (7) to the door with the tubular rivets (5) and the flat washers (6). Fasten the fuse retaining clips (4) and the exciter lamp retaining clip (3) in place with the tubular rivets (2).

c. Hook the accessory retaining springs (1) to the perforations inside the door.

93. Projector Case Reassembly
(fig. 54)

a. Fasten the drawbolt strike (23) to the projector case with the tubular rivets (22).

b. Attach the two mechanism plate support brackets (18) to the projector case with the machine screws (16) and the lockwashers (17).

c. Fasten the receptacle connectors (14 and 15) to the projector case with the machine screws (10), the hexagonal nuts (11), and the lockwashers (12). Fasten the receptacle hole cover (13) to the projector case with the machine screws (9), the hexagonal nuts (11), and the lockwashers (12).

d. Press the loopsetter rod knob stop (8) into the opening in the top of the case and secure it with the speed nut (7).

e. Press the straight pins (4) through the openings in the carrying handle (5). Install the two torsion springs (3) to the rearmost of each pair of carrying handle posts (2). Assemble the posts to the straight pins, with the rear end of each pin inserted through the small loop of each torsion spring and into the hole in the posts. Engage the straight end of each torsion spring with the small holes in the handle just above the straight pins. Assemble the carrying handle plates (6) to the posts and insert the threaded ends of the posts down through the holes in the top of the projector case. Install and tighten the self-locking nuts (1).

94. Amplifier and Speaker Reassembly
(fig. 53)

a. Assemble the speaker (5) and the speaker grille (8) to the speaker panel (2) with the machine screws (6) and the self-locking nuts (7).

b. Solder the marked speaker cable leads (10) to the terminals on the speaker. Lift the speaker panel up into position and install the machine screws (3) and the lockwashers (4) to secure the panel to the amplifier assembly (11).

c. Hold the tube vent grille (1) in position and secure it by turning the three captive fasteners clockwise one-quarter turn.

95. Film Slack Adjuster Reassembly
(fig. 52)

a. Place the compression spring (8) on the film slack adjusting rod (9) and insert the rod into the adjusting mechanism housing (7). The spring pin (10) must enter the slot in the housing, and the notch in the end of the rod must face toward the curved surface of the housing.

b. Insert the compression spring (6) and the stop pin (5) into the small hole in the housing. Install the adjusting collar (4) on the film slack adjusting rod (9) and press the collar toward the housing until the point end of the stop pin engages the teeth of the adjusting collar.

c. Install the retaining collar (2) and compress all parts until the spring pin (10) is in the center of the slot in the housing; tighten the setscrew (3) against the flat of the film slack adjusting rod (9). Install and tighten the machine screw (1). Refer to paragraph 97*h* for film slack adjuster replacement instructions.

96. Takeup and Rewind Pulley Reassembly

The takeup pulley and the rewind pulley are made of identical parts, the difference being in the manner in which the clutch cam is installed. Reassemble the takeup pulley or the rewind pulley as follows:

a. Hold the pulley ((9), fig. 51), with the ball bearing (8) installed, in one hand with the large opening facing upward. Insert the clutch cam (7) down into the pulley so that the correct clutch action is obtained (fig. 57). If necessary, turn the clutch cam completely over so that the shallow end of the cam rise is located properly for the particular pulley being assembled.

b. Assemble the compression spring ((6), fig. 51) and the three steel balls (5). Note that the clutch ball retainer (4) has three pairs of projecting ears spaced so that they will straddle the steel balls (5) when the retainer is assembled. In addition, the retainer has a single projecting ear which will bear against the free end of the compression spring (6). Press each steel ball toward the center of its cam cutout and carefully install the clutch ball retainer (4). Check to make certain that all steel balls and projecting ears of the retainer are engaged.

c. Insert the threaded end of the pulley shaft assembly (1) down through the bearing, turning the shaft until the pin on the pulley shaft flange enters the pinhole in the clutch cam. Hold the parts together lightly and turn the pulley to check the rotation (fig. 57). If the pulley rotates freely in the indicated direction, install the extruded washer ((3), fig. 51) so that the shoulder of the washer enters the hole in the pulley; secure all parts with the self-locking capnut (2).

d. Refer to paragraph 97*n* for takeup pulley and rewind pulley replacement instructions.

97. Mechanism Plate Components Reassembly

To replace the minor components on the mechanism plate, proceed as follows:

a. Place the lubricating wick (A, fig. 56) in the opening in the roof of the cavity below the camshaft openings in the mechanism plate. Install the lubricating pad and the lubrication plate in the cavity. Replace the setscrew, tighten it to apply a slight pressure on the lubrication plate, and replace and tighten the hexagonal nut (B, fig. 56). Install the aperture plate mounting bracket ((43), fig. 50) with the machine screws (40), the lockwashers (41), and the flat washers (42).

b. Screw the framer shaft (39) up into the pivot bar assembly (38), and attach the pivot bar to the mechanism plate with the machine screw (35), the spring tension washer (36), and the flat washer (37). The spring tension washer must be installed with its cup face toward the pivot bar. Hold the framer shaft locking collar (31), beveled face up, between the arms of the framer shaft bracket (34) and slide the bracket and collar up onto the framer shaft (39). Attach the framer shaft bracket (34) with the machine screws (32) and the lockwashers (33). Slide the collar up until it touches the bracket, and tighten the setscrews (30).

c. Temporarily fasten the drive shaft bracket (5) to the mechanism plate with the machine screws (3) and the lockwashers (4). Do not tighten the screws. Insert the mechanism drive shaft (23) through the drive shaft bracket (5) and into the bearing in the mechanism plate, shifting the bracket if necessary until the drive shaft is

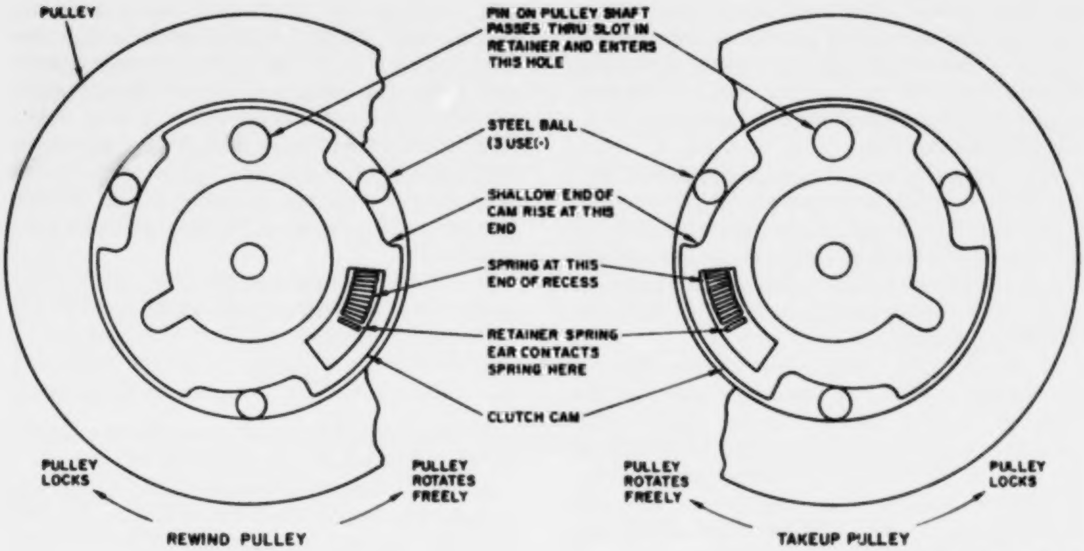

PULLEY
PIN ON PULLEY SHAFT PASSES THRU SLOT IN RETAINER AND ENTERS THIS HOLE
STEEL BALL (3 USED)
SHALLOW END OF CAM RISE AT THIS END
SPRING AT THIS END OF RECESS
RETAINER SPRING EAR CONTACTS SPRING HERE
CLUTCH CAM
PULLEY LOCKS
PULLEY ROTATES FREELY
REWIND PULLEY
PULLEY ROTATES FREELY
PULLEY LOCKS
TAKEUP PULLEY

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Figure 57. Takeup and rewind pulley clutch action.

aligned in both bearings. Tighten the machine screws (3) securely. Withdraw the drive shaft from the mechanism plate bearing just far enough to permit the installation of the thrust collar (19), the mechanism drive gear (21), and the flat washer (22) on the drive shaft; press the drive shaft back in place until the end of the shaft is flush with the front face of the mechanism plate bearing. Press the mechanism drive gear (21) toward the mechanism plate until the flat washer (22) bears against the rear face of the mechanism plate bearing, and tighten the two setscrews (20) securely. Move the thrust collar (19) until it touches the bearing in the drive shaft bracket (5) and tighten the setscrews (18) securely. Fasten the rewind sprocket (2) to the protruding end of the mechanism drive shaft with the setscrews (1).

d. Fasten the shuttle cover mounting plate (17) to the mechanism plate with the machine screws (16). Install the shim washers (12) on the front camshaft (11) and insert the camshaft through its bearing in the mechanism plate. Before proceeding with the assembly of parts, check and, if necessary, adjust the height of the front camshaft (para 131).

e. Install the shim washers (10) and the front cam gear (9) on the front camshaft, aligning the slot in the gear with the slot in the camshaft. Assemble the gear lockring (8) into the slots of the gear and camshaft, and install the machine screw (6) and the lockwasher (7). The camshaft must revolve freely with no noticeable end play. If necessary, add shim washers (10) until end play has been removed.

f. Assemble the rear camshaft (15) and the rear cam gear (14) to the mechanism plate, with the hub of the gear facing away from the mechanism plate. Tighten the setscrews (13) just enough to hold the gear on the camshaft. Assemble the shutter (28) to the shutter shaft (29) with the machine screws (27), making certain that the screwheads are centrally located in the elongated slots before they are tightened. Install the shutter assembly (26) and the shutter gear (25), and tighten the setscrews (24) just enough to hold the gear. Before proceeding with the assembly of parts, synchronize the camshafts and the shutter (para 132) to prevent travel ghost.

g. Assemble the idler rollers ((39), fig. 49) to the floating idler arm (40) with the machine screws (38). Install the floating idler assembly (37) to the mechanism plate and attach the floating idler tension lever (36) with the machine screw (35). Attach the idler spring bracket (34) loosely to the mechanism plate with the machine screw (32) and the lockwasher (33). Hook the floating idler spring (31) between the floating idler tension lever (36) and the idler spring bracket (34); adjust the bracket until all slack is removed from the floating idler spring (31) and tighten the machine screw (32) securely.

h. Attach the film slack adjuster assembly (30) to the mechanism plate with the machine screws (28) and the lockwashers (29).

i. Assemble the loopsetter roller (26) and the knurled knob (25) to the loopsetter (27) and insert the loopsetter assembly (24) through the mechanism plate. Install the loopsetter arm (23) on the end of the shaft, and tighten the setscrew (22) down against the flat of the shaft. Screw the spring stud (21) into the mechanism plate and hook the loopsetter tension spring (20) between the spring stud and the loopsetter arm.

j. Screw the two jockey roller stop studs (18) with the lockwashers (19) into the tapped holes in the mechanism plate. Insert the shafts of the sprocket gear assemblies (15, 16, and 17) through their supporting bearings in the mechanism plate. Install the sleeve (14) on the short shaft end of the feed sprocket gear assembly (15).

k. If either idler gear stud (9 or 13) was removed for replacement, press the new gear stud into the mechanism plate. Insert the lubricating wick (10) into the hole in the double idler gear stud (9) and saturate the wick with oil (2135). Install the single idler gear (12) and the retaining ring (11) on the single idler gear stud; install the double idler gear (8), the spacer (7), and the retaining ring (6) on the double idler gear stud. Lubricate all gears (para 91*b*). Install the mechanism gear cover (4) and its gasket (5) with the machine screws (1 and 2) and the lockwashers (3).

l. Assemble the loopsetter bracket ((30), fig. 48) to the loopsetter rod (31). Engage the lower hook end of the loopsetter rod with the hole in the loopsetter arm ((23), fig. 49). Attach the loopsetter bracket ((30), fig. 48) to the rear of the mechanism plate with the two machine screws (28) and the lockwashers (29).

m. Assemble the rewind pulley assembly (22) and the takeup pulley assembly (23) with their washers (24 and 25) to the mechanism plate. Install two more washers (20 and 21) on each pulley shaft; assemble the rewind and takeup sprockets (18 and 19) to the pulley shafts, sprocket hubs facing outward, and tighten the setscrews (17) securely. The pulleys must rotate freely with a maximum end play of 0.0005 inch.

n. Engage the drive chain (16) with the teeth of both sprockets (18 and 19). Engage the teeth of the drive sprocket (27) with the drive chain and install this sprocket, hub facing outward, on the protruding end of the feed sprocket gear shaft. Tighten the two setscrews (26) securely.

o. Assemble the idler roller (14) to the idler roller arm (15) and secure with the retaining ring (13); attach drive chain idler assembly (12) to the mechanism plate with the machine screws (9), the lockwashers (10), and the flat washers (11). Before tightening the machine screws (9), shift the idler assembly until only a small amount of slack remains in the drive chain (16).

p. Assemble the pilot lamp bracket (7) to the lampholder (8) and secure the bracket to the mechanism plate with the machine screws (4), the hexagonal nuts (5), and the lockwashers (6). Assemble the eccentric bearing (2) into the idler pulley (3), and attach these parts to the mechanism plate with the machine screw (1).

98. Lens Mounting Reassembly
(fig. 47)

Note: Apply a light film of grease (GL) to the shaft of the pressure plateholder assembly (1), the focusing pinion (15), and the pressure plate release rod (14) before assembling these parts.

a. Assemble the flat spring (19), cup face up, and the spring retaining plate (16) to the underside of the lens holder mounting (23) with the machine screws (17) and the lockwashers (18).

b. Insert the focusing pinion (15), the pressure plate release rod (14), and the compression spring (13) into the lens holder mounting, and attach the side rail (10) in place with the machine screws (11) and the lockwashers (12). Do not tighten the screws (11) until after the lens mounting assembly and lens holder assembly are installed on the mechanism plate.

c. Install the spring washer (8) on the shaft of the focusing pinion (15) with the cup face of the washer against the side rail (10). Install the focusing knob (6) and tighten the setscrew (7). Screw the film gate release knob (9) onto the threaded end of the pressure plate release rod (14).

d. Insert the shaft of the pressure plate holder assembly (1) through the lens holder mounting, and install the compression spring (5), the holder rod collar (4), the film gate closing handle (3), and the self-locking nut (2). Install the top rail (20) with the machine screws (21).

e. Refer to paragraph 124 for lens mounting replacement instructions.

99. Soundhead Chassis Reassembly
(fig. 46)

a. Assemble the rotary switch (17) and the switchplate (16) to the chassis subassembly (20). Hold the switchplate so that a line through the switchplate studs and mounting boss is perpendicular to the top surface of the chassis and tighten the setscrews (15) securely.

b. Apply a light film of grease (GL) to the selector arm slots and spring holding ears of the chassis.

c. Assemble the optical selector arm (9) and the record selector arm (10) to the chassis, engaging the pins on the selector arms with the slots in the chassis. Install the snubber spring (11) with the machine screw (19) and hexagonal nut (18).

d. Assemble two of the compression springs (7) to the spring straps (12) and assemble the spring straps to the chassis by sliding the springs over the cutout guide lugs in the chassis until the rectangular opening in the bent ear of each spring strap fits over the guide lugs. Compress each spring until the end of its related selector arm contacts the bent ear of the spring strap to hold these parts in place.

e. Assemble the release and locking plate (13) and the compression spring (14), engaging the notches in the plate with the optical and record selector arms (9 and 10). Install the magnetic selector arm (8) on the chassis, engaging the front end of the arm with the remaining notch in the release and locking plate (13). Install the remaining compression spring (7) over the rear end of the magnetic selector arm, and assemble the selector arm clamp (6) onto the arm to hold the spring in place. Attach the clamp to the chassis with the machine screws (4) and the lockwashers (5).

f. Cement the pushbuttons (1, 2, and 3) to the proper selector arms.

g. Refer to paragraph 103*d* for soundhead chassis replacement instructions.

100. Soundhead Stabilizer Reassembly
(fig. 45)

a. Install the large ball bearing (12) on the stabilizer shaft (11) and insert the shaft into the stabilizer housing (15). Fasten the bearing lock plate (10) to the housing with the machine screws (9) and install the bearing lock nut (8) and the self-locking nut (7).

b. Assemble the thrust washer (14) and the small ball bearing (13) over the front end of the stabilizer shaft and press them down into place within the housing. Install the sound drum (6) and the special nut (5).

c. Rotate the sound drum (6) against a trueness indicator. The total indicator reading on the turned diameter of the sound drum must not exceed 0.0004 inch. If the deviation exceeds 0.0004 inch, the sound drum must be machined to obtain a true running surface before installing the light pipe prism. If machining is necessary, pack the prism opening with cotton and cover the opening and the magnetic heads with masking tape or electrical tape before machining the drum. Do not machine the diameter of the sound drum to less than 1.016 inch. During the machining operation, check the indicator reading frequently until the total indicator deviation does not exceed 0.0004 inch. After machining, remove the tape and cotton packing from the stabilizer housing and check to make certain that no strands of cotton remain in the prism openings.

d. Insert the light pipe prism (3) into the prism mount (4) so that the clear areas of the prism face upward. Assemble the mount and prism into the lower light pipe bracket (2), with the clear areas of the prism facing upward, and insert the assembled parts into the opening in the stabilizer housing with the widest end of the prism extending under the sound drum approximately 0.040 inch. Carefully place the upper light pipe bracket (2) over the prism and install and tighten the machine screws (1).

e. Refer to paragraph 103*e* for soundhead stabilizer replacement instructions.

101. Impedance Roller Reassembly

(fig. 44)

a. Hold the impedance roller (6) between the arms of the impedance roller housing (12) so that the 5/32-inch wide groove in the roller is adjacent to the threaded hole which receives the adjustable pivot pin (4). Insert the unthreaded pivot pin (5) into its opening and install the setscrew (1) so that the cone point enters the groove in the pivot pin.

b. Screw the adjustable pivot pin (4) into its opening to a point where the impedance roller (6) turns freely but with a minimum of end play. Insert the locking slug (3) so that its smooth surface is against the pivot pin, and install and tighten the setscrew (2). Impedance roller end play must not exceed 0.0005 inch.

c. Lubricate the impedance roller parts as instructed in paragraph 91*d*; insert the torsion spring (11) into the impedance roller housing (12), engaging the bent end of the spring with the small hole inside the housing. Insert the roller mounting stud (10) through the spring and housing, engaging the outer bent end of the spring with the small hole in the flange of the stud.

d. Press the stud in against the housing and install the roller adjusting nut (9), the machine screw (7), and the lockwasher (8). Do not tighten the screw.

e. Refer to paragraph 103*k* for impedance roller replacement instructions.

102. Jockey Roller Reassembly

(fig. 43)

The jockey roller assemblies are almost identical in construction, and are assembled in the same manner. Proceed as follows:

a. Hold the upper roller (3) in position between the sleeve bearings (5) in the upper roller housing (6), and insert the jockey roller shaft (2) through the bearings and the roller.

b. Install the setscrew (1) and tighten it just enough to hold the roller to the shaft. The roller must rotate freely and with a minimum of end play.

CAUTION

Do not overtighten the setscrew (1) as this may bend the jockey roller shaft and cause the roller to lose its free-turning property

c. Refer to paragraph 103*k* for jockey roller replacement instructions.

103. Soundhead Reassembly

(fig. 42)

a. Insert the exciter lamp cable assembly (69) down through the hole in the soundhead chassis assembly (42). Fasten the terminal block (68) to the soundhead chassis with the machine screw (66) and the lockwasher (67). Fasten the input transformer (65) to the soundhead chassis with the machine screws (63) and hexagonal nuts (64).

b. Assemble the machine screws (59) and flat washers (60) to the soundhead chassis. Install the turret and socket assembly (62) onto the screws, and the lug terminal (61) onto the screw nearest the rear of the chassis. Secure these parts with the hexagonal nuts (57) and the lockwasher (58). Install the electron tube (56) and the tube shield (55).

c. If the plug connectors (52 and 53) were removed, solder the wire leads to the pins of the new connectors. Slide insulating sleeve (54) up over the pins of plug connector (53).

Install the cable clamp (16) on the wiring harness (51). Carefully take up all slack in the wiring harness leads on the underside of the chassis, and fasten the cable clamp to the cable clamp bracket (50) with the machine screw (43), the hexagonal nut (14), and the lockwashers (45).

d. Check all wiring connections within the soundhead chassis to make certain that they are proper and secure. Assemble the soundhead chassis to the soundhead mounting plate (70) with the machine screws (40) and their lockwashers (41).

e. Make certain that the twisted wire leads of the soundhead stabilizer (39) are lying in the machined grooves on either side of the stabilizer light pipe prism. Carefully insert the soundhead stabilizer through is opening in the soundhead mounting plate so that the light pipe prism will be facing the scanner lens (25) when the soundhead stabilizer is in place. Install the retracting lever (35) on the lever pivot stud (36) and engage the protruding pin at the top of the lever with the soundhead stabilizer slide. This slide moves back and forth in a groove of the soundhead stabilizer to raise and lower the magnetic heads. Install the flat washer (34) and the self-locking nut (33) on the lever pivot stud (36).

f. Insert the soundhead gage (12, fig. 22) into the scanner lens bracket (fig. 59). Gently move the soundhead stabilizer until the inner edge of the sound drum just touches the locating pin on the inner end of the soundhead gage. Check to make certain that the light pipe prism faces the scanner lens; tighten the three setscrews (37 and 38, fig. 42) securely and remove the soundhead gage. This alignment insures the correct sound drum position (fig. 59).

g. Attach the photocell mounting plate (32, fig. 42) with the machine screws (29) and the lockwashers (30), positioning the plate so that the exposed face of the light pipe prism is centrally located in the U-shaped cutout of the mounting plate. Hold the photocell assembly (31) in place against the mounting plate with the photocell wire lead connection at the top and the red dot on the photocell facing toward the light pipe prism, and secure with the machine screws (29) and the lockwashers (30). Secure the two photocell terminals and the two wiring harness terminals (51) to the terminal block (68) with the machine screws (66) and lockwashers (67). Pair the wiring harness shielding terminal with the photocell plain terminal; pair the photocell red terminal with the wiring harness black terminal. Install the photocell cover (28) and secure with the machine screw (26) and the lockwasher (27).

*g.*1 When assembling Projector AQ-4A(3), check the position of the exposed face of the optical light pipe prism mounted in the soundhead stabilizer (39, fig. 42) after installing photocell mounting plate (32). If the center point of the prism is not equidistant within the opening in the mounting plate, loosen machine screws (29) and adjust the position of the mounting plate. Tighten machine screws (29). Hold photocell assembly (31) in place against the bosses on the mounting plate with the small round opening on one side of the diode facing the optical light pipe prism. Lock the photocell assembly (31) in place with two machine screws (29A) and lockwashers (30). Make connections and install photocover (*g* above). Install deep photocell cover, the shallow photocell cover used in the AQ-4A (1) and AW-4A(2) will not fit properly.

h. Insert the scanner lens (25) into its bracket in the soundhead mounting plate; install and tighten the machine screw (24) just enough to hold the lens in place.

i. Assemble the lamp contact tension spring (20) to the lamp contact cable assembly (22), and insert the cable through the lamp socket nut (19). Assemble the pin release cam (21) and the lamp socket nut to the exciter lamp socket assembly (23), and mount the socket assembly in place with the three machine screws (18). Insert the lamp contact cable through the small hole in the soundhead mounting plate just below the lamp socket. Connect the loose black wire of the exciter lamp cable assembly (69) to the shielding of the lamp contact cable and install the insulated splice (17). Place the exciter lamp (16) down on the locking pins of the socket assembly and move the lever of the pin release cam (21) to the left to secure the lamp.

j. Press the lampholder (12) into place and screw in the record indicator lamp (11). Attach the shield (10) to the soundhead mounting plate with the machine screws (9).

k. Assemble the impedance roller assembly (8) to the soundhead mounting plate, and tighten the machine screw (7) down against the flange of the impedance roller housing just enough to hold the roller assembly in place. Install the jockey roller assemblies (3 and 4) to their pivot studs (5) with the flat washers (2) and the retaining rings (1).

l. Refer to paragraph 120 for soundhead replacement instructions.

104. Relay K101 Reassembly
(fig. 41)

a. Secure the receptacle connector (8) to the relay box (10) with the nut (9).

b. Attach relay K101 (6) and its spacers (7) to the relay box (10) with the machine screws (4) and the lockwashers (5).

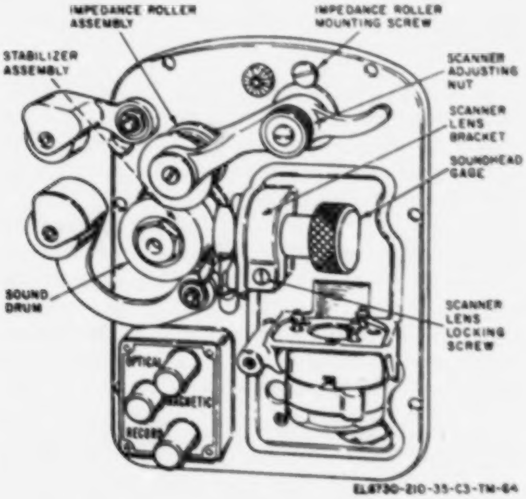

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Figure 58. Aligning stabilizer assembly using soundhead gage.

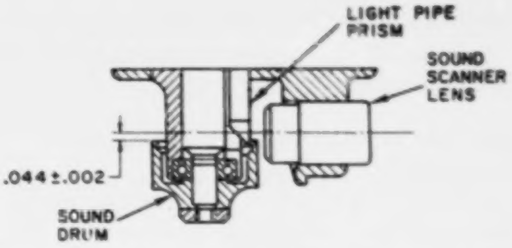

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Figure 59. Aligning sound drum and scanner lens.

c. Fasten the relay box cover (3) to the relay box with the machine screws (1) and the lockwashers (2).

d. Refer to paragraph 121 for relay K101 replacement instructions.

105. Ventilation Motor Reassembly
(fig. 40)

a. Insert the bearing loading spring (13) into the bearing seat inside the ventilation motor housing (14) so that the ears on the spring will face the ball bearing when the armature is installed.

b. Apply a light coating of grease (GL) to the outside diameter of the ball bearings (10) before assembling the armature (12) and bearings into the ventilation motor housing.

c. Assemble the ventilation motor housing (14) to the housing cover (6) and secure it with the machine screws (7), the lockwashers (8), and the capacitors (9).

d. Insert the motor brushes (2) into the brush holders. The brushes should be inserted so that the arc at the end of the brush follows the contour of the armature commutator. Install the brush caps (1).

e. Install the blower wheel (5) on the armature shaft, and position the blower wheel with 0.047-inch clearance between the blower and the housing cover (6). Check this clearance at several points around the outer circumference of the blower wheel (5) before tightening the blower wheel setscrew against the flat part of the armature shaft.

f. Refer to paragraph 122 for ventilation motor replacement instructions.

106. Motor Gear Housing Reassembly
(fig. 39)

a. Place 1 or 2 drops of oil (2135) on the sleeve bearings in the gear housing cover (3) and gear housing (9).

b. Assemble the gear and shaft (8) into the gear housing. Install the shim washers (7) and the nonmetallic washer (6) so that the gear shaft has approximately 0.008-inch end play with the gear housing cover installed. Install the gear housing cover (3) with the machine screws (4) and the lockwashers (5). Check to make certain that the shaft turns freely. If binding occurs, loosen the machine screws (4) and realign the gear housing cover.

c. Assemble the drive shaft sprocket (2) to the flexible drive coupling (1) so that the flat part of the sprocket hub is aligned with the setscrew in the coupling, and tighten the coupling setscrew. The assembled coupling and sprocket is installed when the drive motor is mounted to the mechanism plate.

d. Refer to paragraph 107*c* for motor gear housing replacement instructions.

107. Drive Motor Reassembly
(fig. 38)

a. If the motor field winding (52) was removed, insert the winding back into the drive motor front housing (55) and secure the winding with the field winding screws (53) and the lockwashers (54). Insert the bearing loading spring (50) into the bearing recess in the drive motor front housing (55) so that the ears of the spring will face the ball bearing (48).

b. Apply a light film of grease (GL) to the outer diameter of the ballbearings (47 and 48) before assembling the motor armature (49) into the front housing. Press the armature in firmly so that the ball bearing (48) bears against the bearing loading spring (50). Assemble the drive motor rear housing (42) to the front housing so that the tapped bosses in both housings are aligned to receive the machine screws (14). Install and tighten the machine screws (43) and the lockwashers (44). Secure the motor drive gear (46) to the armature shaft with a new spring pin (45).

c. Lubricate the gear housing (8) as instructed in paragraph 91*e* and attach the gear housing to the drive motor rear housing with the machine screws (9 and 11) and the lockwashers (10 and 12). Check the rotation of the armature shaft. The shaft should turn smoothly and easily and with a maximum end play of 0.008 inch.

d. Insert the governor brushes (39) into the governor brush holders (41). Press the governor (37) onto the armature shaft until the governor seats about 1/16 inch from each brush holder. Tighten the setscrews (38) securely.

e. Insert the motor brushes (30) into the motor brush holders (32) so that the curve in the end of each brush follows the contour of the commutator. Install the brush holder caps (29). The brushes must fit freely into their holders and the armature must turn smoothly and easily after the brush holder caps are installed. Attach the capacitors (34) with the machine screws (35) and the lockwashers (36).

f. If the motor insulating bushings (24) were removed, press new bushings into the motor mounting bracket (25). Assemble the mounting bracket to the motor housings with the machine screws (14 and 16) and the lockwashers (15); secure one lug of the ground strap (26) under the machine screw (14) closest to the idler roller mounting boss of the bracket. Secure the other end of the ground strap to the tapped hole between the two motor insulating bushings (24) with the machine screw (27) and the lockwasher (28).

g. Assemble the idler roller (22) to the idler roller arm (23) and secure with the retaining ring (21). Attach this idler (20) to the motor mounting bracket (25) with the machine screws (17), the lockwashers (18), and the flat washers (19). Tighten the screws just enough to hold. The idler assembly is used to adjust the tension of the mechanism drive chain after the drive motor is installed (para 123).

h. Slip the assembled flexible coupling and sprocket (para 106*e*) onto the gear housing shaft. Maintain a clearance of 0.062 inch between the gear housing and the face of the sprocket while tightening the flexible coupling setscrew (13) down against the flat of the shaft.

i. Connect all drive motor wiring (fig. 99). Check and adjust the motor governor (para 137); refer to paragraph 123 for drive motor installation instructions.

108. Switchplate Reassembly
(fig. 37)

a. Assemble the octal socket (27), the socket retaining ring (26), and the socket mounting spacers (28) to the socket mounting plate (32) with the machine screws (23), the hexagonal nuts (24), and the lockwashers (25). Attach the socket mounting plate to the switchplate housing (33) with the machine screws (29), the hexagonal nuts (30), and the lockwashers (31).

b. Assemble the lampholder (22) to the lampholder bracket (21) and secure the bracket to the switchplate housing with the machine screws (15 and 18), the lockwashers (16 and 19) and the hexagonal nuts (17 and 20). Install the panel lamp (2) and the lamp shield (1) on the lampholder.

c. Install the switch locating disks (12) on the threaded mounting shanks of the three switches (9, 10, and 11) and assemble the switches to the switchplate housing so that the projecting ear of each locating disk enters the small hole alongside each of the switch mounting holes. Be sure to insert the switch insulator (13) between the OFF-MOTOR-LAMP switch (10) and the housing. Install the switch mounting nuts (8). Screw the switch knob index stud (7) into the tapped hole in the shaft of the switch (10) and install the switch knob (5) with the machine screw (4). Press the button plug (6) into the opening above the switch (9).

d. Refer to paragraph 129 for switchplate installation instructions.

109. Counter Drive Mechanism Reassembly
(fig. 36)

NOTE

During assembly lubricate parts as instructed in paragraph 91*f*.

a. Assemble the first flat washer (28), the ratchet arm (27), the second flat washer (28), the first shim washer (26), the ratchet wheel (24), the second shim washer (25) onto the stud within the couner drive mechanism housing (29) and install the spacer (23) and retaining ring (22). Vary the quantity of shim washers, if necessary, to obtain an end play of 0.001 to 0.003 inch in these parts. Hook the extension spring (21) between the hole in the lower end of the ratchet arm and the small hole near the bottom of the housing.

b. Hold the ratchet worm gear (18) up in position within the counter drive mechanism housing with its teeth meshing with the worm of the ratchet wheel (24) and insert the output shaft (20) through the housing and the worm gear. Center the teeth of the ratchet worm gear (18) with the worm of the ratchet wheel, and tighten the setscrew (17) securely against the flat of the output shaft (20). Install the two retaining rings (19) on the shaft inside the housing. Install the drive disk (16) on the end of the output shaft, tightening the setscrew (15) securely against the flat of the shaft.

c. Press the sleeve bearing (12) and the cam gear stud (13) into the gear train mounting plate (14). The flange of the sleeve bearing must be tight against the mounting plate, and the large diameter of the cam gear stud must extend 3/64 inch (±0.010) above the cam and gear mounting surface of the mounting plate. Install the cam and gear (5) onto the cam gear stud, and secure the gear with the retaining ring (4).

d. Insert the pinion hub (9) through the sleeve bearing (12) and install the shoulder washer (11), with the shoulder facing out, on the pinion hub; press the 12-tooth pinion (10) onto the hub and down against the shoulder of the washer. Check to make certain that the pinion hub rotates freely.

e. While pressing the lower end of the ratchet arm (27) toward the drive disk (16), position the gear train plate (8) in the housing and install the machine screws (6) and the lockwashers (7). The upper finger of the ratchet arm (27) must bear against the cam of the cam and gear (5). Check to make certain that the ratchet fingers riveted to the ratchet arm and the housing are engaging the teeth of the ratchet wheel (24); install the counter mechanism cover (3) and secure with the machine screws (1) and the lockwashers (2).

f. Refer to paragraph 118 for counter drive mechanism installation instructions.

110. Projector Legs Reassembly
(fig. 35)

a. Rear Leg.

(1) Screw the leg adjustment screw (6) into the tapped hole in the projector leg bracket (7).

(2) Place the adjustable foot (5) in the leg adjustment screw and secure with the machine screw (3) and the lockwasher (4).

(3) Secure the fixed foot (1) and the lockwasher (2) to the opposite end of the projector leg bracket.

b. Front Leg. The projector front leg is identical with the rear leg, except that it is equipped with two fixed feet (1) and lockwashers (2).

111. Projector Tilting Mechanism Reassembly
(fig. 34)

a. Lubricate the pinion and gear rack teeth as instructed in paragraph 91*b*.

b. Insert the gear rack (6) up through the slot in the tilt jack housing (7).

c. Compress the friction spring (4) and insert it into the tilt jack housing; be careful not to damage the cork lining within the housing.

d. Insert the tilt jack pinion (3) into the housing so that the slot in the irregular shaped pinion collar engages one bent ear of the friction spring, and the teeth of the pinion mesh with the teeth of the gear rack.

e. Install the thrust washer (2) on the pinion shaft with the bow of the washer toward the pinion collar. Insert the tilt jack arm (1) so that one bent lug of the arm engages the remaining bent ear of the friction spring.

f. Refer to paragraph 119 for tilting mechanism replacement instructions.

112. Shuttle and Cams Reassembly
(fig. 33)

a. Install the horizontal motion cam (22) on the rear camshaft (26) and the vertical motion cam (23) on the front camshaft (27). Make certain that the cams are seated flush against the flanges of the camshafts. Install the rear cam retaining washer (16) and the self-locking nut (15).

b. Assemble the inner shuttle pivot spacer (21) and the shuttle pivot bushing (20) onto the pivot bar shaft (25). Hook one end of the extension spring (10) into the small hole in the shuttle (19); install the shuttle onto the cams and the pivot bushing and hook the loose end of the spring into the extension spring retaining ear (24).

c. Install the outer shuttle pivot spacer (18), the shuttle pivot bushing washer (17), and the self-locking nut (14) onto the pivot bar shaft (25).

d. Install the front cam lubricating disk (13) onto the front camshaft, making certain that the pin protruding from the flange of the camshaft enters the smaller of the holes in the lubricating disk. Install the front cam counterweight (12) down against the lubricating disk, engaging the conterweight locating pin with the larger of the two holes in the disk. Screw the locknut (11) down fingertight against the counterweight.

e. Place 1 drop of oil (2135) on each of the cams and on the shuttle pivot bushing (20). Oil the shuttle cover lubricating pad (para 91*a*). Install the shuttle cover (9), and secure with the machine screws (6 and 7) and the lockwashers (8).

f. Install the shutter cover (5) and secure with the machine screws (3) and the lockwashers (4). Install the FRAMER knob (2) and tighten the setscrews (1).

113. Condenser Lens Reassembly
(fig. 32)

a. Insert the front condenser lens (1) into the condenser lens bracket (8) with the convex (bulged) surface of the condenser lens inside and the flat surface outside. Handle the condenser lens by its edges to avoid leaving fingerprints. Secure the condenser lens in place with the front lock spring (2).

b. Insert the rear condenser lens (3) into the bracket with the convex (bulged) surface inside the bracket, and secure with the rear lock spring (4).

c. Insert the compression spring (7) into the hole in the top of the bracket, and assemble the lens bracket lock lever (5) to the bracket with the machine screws (6) so that the compression spring is held in place by the bent ear of the lever.

d. Refer to paragraph 127*b* for condenser lens assembly installation instructions.

114. Film Sprockets and Associated Items Reassembly
(fig. 31)

a. During assembly of film shoe parts, lubricate as instructed in paragraph 91*c*.

b. Position the film shoe (12) in the pivot bracket (11) so that two grooves in the inner face of the pivot bracket are at the top of the bracket; install and tighten the pivot screws (10) securely.

c. Swing the pivot bracket down so that the pivot plunger hole in the film shoe is accessible. Insert the compression spring (14) and the film shoe plunger (13) into the film shoe. Use a flat-bladed screwdriver or similar tool to press the pivot plunger into the hole so that the pivot bracket can be raised to lock the plunger in position.

d. Install the film stop (7) on the flange of the bearing protruding from the mechanism plate and position it so that its rounded edge is centered with the film shoe mounting holes. Install the flat washer (6) and the film sprocket (5) on the sprocket gear shaft. The film sprockets and shaft must turn freely with a maximum end play of 0.005 inch; tighten the sprocket setscrews (4) securely.

e. Attach the assembled film shoe to the mechanism plate and secure with the two machine screws (8) and the lockwashers (9). Attach the film stripper (3) to the mechanism plate with the machine screw (1) and the lockwasher (2).

f. Adjust the film shoe to sprocket film clearance as instructed in paragraph 133.

115. Aperture Plate and Pressure Plate Reassembly

a. *Aperture Plate* (fig. 29).

(1) Assemble the fixed film rail (1) to the left side of the aperture plate (7) with the sapphire jewel insets facing the aperture opening. Install the machine screws (2) and tighten them just enough to hold.

(2) Place the aperture and shuttle tooth gage (2, fig. 22) on the aperture plate as shown in figure 60. Press down firmly on the gage and slide the gage toward the floating film rail until the two alignment pins on the gage drop into the shuttle tooth slot on the aperture plate. Move the fixed film rail until it is flush against the gage; then tighten the two screws securely. Remove the gage.

(3) Place the flat washers (6, fig. 29) over the tapped holes for the floating film rail (3), position the floating film rail on the aperture plate, and secure with the machine screws (4). Tighten the screws.

(4) Install the side tension spring (5) on the stud of the floating film rail, spreading the legs of the spring until they enter the grooves on the underside of the aperture plate.

(5) Refer to paragraph 128*a* for aperture plate installation.

b. Pressure Plate (fig. 30).

(1) Place the compression springs (3) on the studs of the plate and stud assembly (4).

(2) Assemble the pressure plate clip (1) on the studs and secure with the retaining rings (2).

(3) Refer to paragraph 128*b* for pressure plate installation.

116. Takeup Reel Arm Reassembly
(fig. 28)

a. The thrust bearings (13) must be installed with the stamped end of the bearings toward the outside of the takeup reel arm (14). First press is the bearing nearest to the pulley so that its stamped end is 0.005 to 0.010 inch above the face of the takeup reel arm. Press the remaining bearing into the casting until it touches the first bearing.

b. Press the ball bearing (8) into the takeup reel arm until it seats against the shoulder inside the casting.

c. Assemble the friction washer (11), takeup spindle pulley (10), and the thrust washer (9) onto the shaft of the spindle (2), and insert the spindle shaft through the reel arm bearing. Install the spindle tension plate (7) over the shaft and press a new spring pin (6) through the shaft to hold the tension plate in place.

d. Install the spindle tension spring (5) and the spindle tension nut (4); tighten the nut just enough so that the spindle can be rotated when the pulley is held stationary. Tighten the capnut (3) until it bears against the spindle tension nut, but no further. Final tension adjustment must be made after the projector is completely assembled and operating with film (para 140).

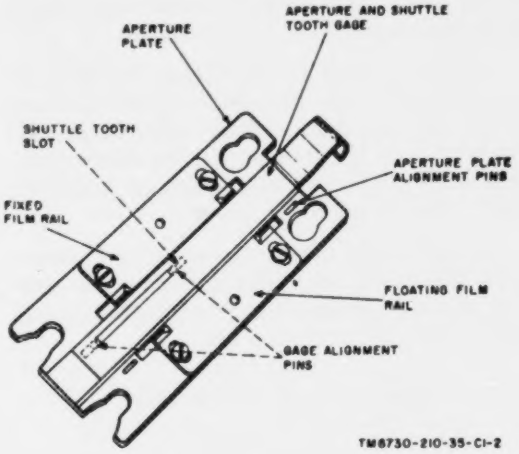


Figure 60. Aligning fixed film rail.

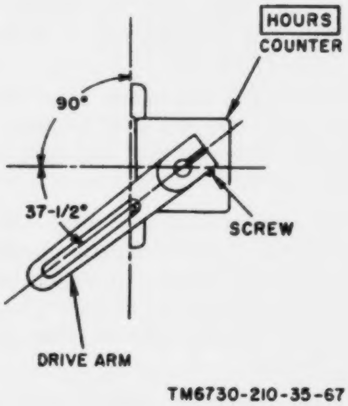


Figure 61. HOURS counter drive arm installation.

117. Feed Reel Arm Reassembly
(fig. 27)

a. The thrust bearings (13) must be installed with the stamped end of the bearings toward the outside of the feed reel arm (15). Press the bearings into the reel arms so that the stamped ends of the bearings are 0.005 to 0.010 inch above the face of the feed reel arm.

b. Press the ball bearing (9) into the clutch plate (8) and carefully stake the face of the clutch plate at four equally spaced points to secure the ball bearing.

c. Assemble the friction washer (12), the feed spindle pulley (11), and the thrust washer (10) onto the shaft of the spindle assembly (2), and insert the spindle shaft through the reel arm bearings. Install the remaining thrust washer (10), the clutch plate (8), and the clutch (7) over the shaft and press a new spring pin (6) through the shaft to retain these parts.

d. Install the spindle tension spring (5) and the spindle tension nut (4); tighten the nut just enough so that the spindle can be rotated when the pulley is held stationary. Tighten the capnut (3) until it bears against the spindle tension nut, but no further. Final tension adjustment must be made after the projector is completely assembled and operating with film (para 139).

118. Replacement of HOURS Counter and Counter Drive Mechanism
(fig. 26)

a. Assemble the counter drive arm (28) to the shaft of the HOURS counter (26) and replace, but do not tighten, the machine screw (27). Position the counter drive arm (fig. 61) and tighten the screw.

b. Assemble the HOURS counter to the counter drive mechanism (31, fig. 26), engaging the pin in the hub of the drive mechanism output shaft with the slot in the counter drive arm (28).

c. Position the assembled parts and install the machine screws (24 and 29) and the lockwashers (25 and 30).

119. Replacement of Tilting Mechanism
(fig. 26)

a. Position the tilting mechanism (23) in the projector case and secure it with the machine screws (21) and the self-locking nuts (22).

b. Press the elevation knob (20) onto the protruding shaft of the tilting mechanism; align the holes in the knob and shaft and install the spring pin (19).

120. Replacement of Soundhead
(fig. 26)

a. Carefully position the soundhead (18) into the opening in the mechanism plate. It may be necessary to raise the soundhead jockey rollers so that they clear the jockey roller stop studs which are screwed into the mechanism plate. When the soundhead is positioned, the rollers will rest on these stop studs.

b. Secure the soundhead to the mechanism plate with the machine screws (16) and the lockwashers (17).

c. Mount the stablizer flywheel (15) on the soundhead stablizer shaft and install and tighten the flywheel screw (14).

121. Replacement of Relay K101
(fig. 26)

a. Solder the wire leads of relay K101 (13) to the pins of the receptacle connector (36) as shown in the projector wiring diagram (fig. 99).

b. Connect the connector (34) to the mating receptacle at the rear of relay K101 and install the relay to the projector case with the machine screws (11) and the lockwashers (12).

122. Replacement of Ventilation Motor
(fig. 26)

a. Position ventilation motor B102 (10), carefully inserting the motor blower wheel into the opening in the mechanism plate.

b. Install the machine screws (8) and the lockwashers (9) and tighten the screws securely.

c. Connect the ventilation motor leads (33) to the switchplate terminals (fig. 90).

123. Replacement of Drive Motor
(fig. 26)

a. Engage the drive chain (7) with the main drive sprocket (37). Position the drive motor (6), engaging the drive sprocket on the motor gear housing shaft with the lower loop of the drive chain (7).

b. Install the machine screws (3), the lockwashers (4), and the flat washers (5) from the front side of the mechanism plate. Shift the motor until the drive chain has only a slight amount of slack, and tighten the screws (3) securely.

c. Temporarily secure the THREADING KNOB (2) to the motor gear housing shaft with the setscrew (1). Refer to paragraph 138 for the adjustment of the THREADING KNOB in relation to the center shuttle tooth.

d. Connect the drive motor plug connector (35) to its mating receptacle on the switchplate.

124. Replacement of Lens Holder and Lens Mounting

(fig. 25)

a. Clean and lubricate (para 91*g*) the lens holder rails in the lens mounting (52). Attach the lens mounting to the mechanism plate with the machine screws (49 and 50) and the lockwasher (51).

b. Position the lens focusing gear rack (45) so that the shorter end is toward the rear of the projector, and secure with the machine screws (44).

c. Insert the release rod guide disk (47), the compression spring (47), and the lens holder friction button (46) into the openings in the lens mounting, and slide the lens holder (42) about halfway onto the lens mounting. Hold the friction button down and slide the lens holder completely into position.

d. The lens mounting side rail was left loose during assembly of the lens mounting. Press firmly against the side rail and tighten the machine screws (49) securely. Loosen the focusing knob setscrew, press the knob in against its spring washer to remove all end play, and retighten the knob setscrew. Install the lens holder stop plate (41) to the front of the lens mounting with the machine screws (39) and the lockwashers (40). Rotate the lens focusing knob; the lens holder should travel back and forth smoothly but with definite tension.

125. Replacement of Projector Legs

(fig. 25)

a. Position the leg spacer (38) and the rear projector leg (36), with the adjustable foot toward the operator's side, and secure with the machine screws (34) and the self-locking nuts (35).

b. Position the leg spacer (38) and the front projector leg (37), and secure with the machine screws (34) and the self-locking nuts (35).

126. Replacement of Guide and Idler Rollers

(fig. 25)

a. Guide Rollers.

(1) Assemble the film guide rollers (28) to the guide roller bracket (29) and secure them with the roller shaft screws (27), the hexagonal nuts (25), and the lockwashers (26).

(2) Fasten the guide roller and bracket (24) to the top of the projector case with the machine screws (21), the lockwashers (22), and the flat washers (23).

b. Idler Rollers.

(1) Secure the film guard (33) to the mechanism plate with the film idler shafts (32).

(2) Assemble the film idler rollers (31) to the film idler shafts and secure with the machine screws (30).

127. Replacement of Projection Optical System

(fig. 25)

a. Projection Lamp and Lampholder.

(1) Connect the projection lamp leads (4) to the terminals of the lamp socket (13), position the lamp socket to the lamp bracket (9) and secure it with the machine screws (12).

(2) Assemble the adjusting sleeves (11) to the adjusting rods of the lamp bracket, and secure the sleeves with the lamp focusing levers (10).

(3) Fasten the lamp bracket to the mechanism plate with the machine screws (7)

and the lockwashers (8). Insert the projection lamp (6) down into the lamp socket; press the lamp down and twist it clockwise to secure the lamp flanges. Refer to paragraph 141 for proper adjustment of the lamp socket.

b. Condenser Lens Assembly.

(1) Grasp the condenser lens assembly (14) so that the thumb of the left hand rests on the release lever at the top of the assembly and the fingers are below the condenser lens housing.

(2) Apply pressure to force the release lever down and guide the condenser lens assembly into place on the mounting pins in the mechanism plate. Release the lever.

c. Lamp Reflector Assembly.

(1) Insert the lamp reflector (19) into the reflector bracket (20). Compress the reflector lockring (18) and press it into the bracket until it snaps into the retaining groove.

(2) Clean the lamp reflector gently with a soft, lint free cloth, and attach the lamp reflector (17) to the mechanism plate with the machine screws (15) and the lockwashers (16).

128. Replacement of Aperture Plate and Pressure Plate

(fig. 25)

a. Aperture Plate.

(1) Open the film gate by pulling outward on the film gate release knob of the lens mounting (52). Rotate the THREADING KNOB until the shuttle teeth are retracted below the surface.

(2) Insert the aperture plate down into place until the retaining slots in the aperture plate engage the guide pins of the aperture plate mounting bracket; press the aperture plate down as far as it will go.

b. Pressure Plate.

(1) With the film gate open, slide the pressure plate onto the guide rails of the pressure plate holder.

(2) Press the pressure plate all the way in place; push the film gate closing handle to the left to close the film gate.

129. Replacement of Switchplate

(fig. 24)

a. Position switchplate (19) and secure it with the three machine screws (9) and the lockwashers (10).

b. Dress the switchplate cable harness across the top of the mechanism plate from the rear of the projector to the front. Solder the lampholder leads (26) to the terminals of the lampholder located behind the receptacle connector (25) and the filter leads (24) to the pins of the receptacle connector (25) as shown in the projector wiring diagram (fig. 99).

c. Secure the filter (18) to the top of the projector case with the machine screws (11 and 12) and the self-locking nuts (13), with a cable clamp (14) under the innermost nut to hold the cable harness in place. Insert the machine screw (15) through the bottom mounting hole of the receptacle connector (25) and the bent tab at the front of the filter; install the hexagonal nut (16) and the lockwasher (17). Fasten the junction box plate (8) to the filter with the machine screws (6) and the lockwashers (7).

d. Connect the projection lamp socket leads to the screw terminals of the OFF-MOTOR-LAMP switch (27), and connect the ventilation motor leads to the screw terminals of the OFF-MOTOR-LAMP switch and the ON-OFF switch (28) as shown in figure 99.

130. Replacement of Projector-Amplifier

(fig. 24)

a. Connect jack plug connector P54 (23) to connector J204 (29) on the projector-amplifier; connect octal plug connector P55 (22) to connector J205 on the projector-amplifier (fig. 23).

b. Connect male plug connector P201 (20, fig. 24) to female plug connector P104 (21) and lift the amplifier and speaker (5) up into position against the projector case. Secure the projector-amplifier chassis to the projector case with the machine screws (3) and the lockwashers (4). Fasten the rear edge of the switchplate to the amplifier chassis with the machine screws (1) and the lockwashers (2).

131. Adjusting Front Camshaft Height

The correct setting of the shuttle front camshaft, as measured from the machined face of the front mechanism plate, should be 1.099 inch. This adjustment requires the use of the following tools and gages shown in figure 22; the camshaft height gage meter (6), the camshaft height gage bridge (11), the master height gage (3), and surface plate (18). The master height gage is 1.099 inch high.

a. Place the master height gage and the camshaft height gage meter and camshaft height gage bridge on the surface plate as shown in figure 62. With the stem of the camshaft height gage meter just touching the master height gage, loosen the setscrew and turn the knurled ring until the pointer is at zero.

b. Place the camshaft height gage meter and camshaft height gage bridge on the machined surface of the front mechanism plate as shown in figure 63. With the stem of the meter just touching the edge of the front camshaft, the meter should indicate (±0.001 inch).

c. The height of the front camshaft is regulated by the quantity and thickness of shim washers (12, fig. 50) on the camshaft. If a *plus* indicator reading is obtained, remove the necessary amount of shim washers to bring the reading to zero. If a *minus* indicator reading is obtained, shim washers must be added.

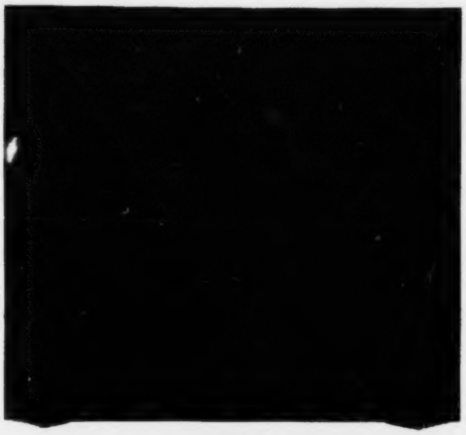


Figure 62. Setting camshaft height gage meter.

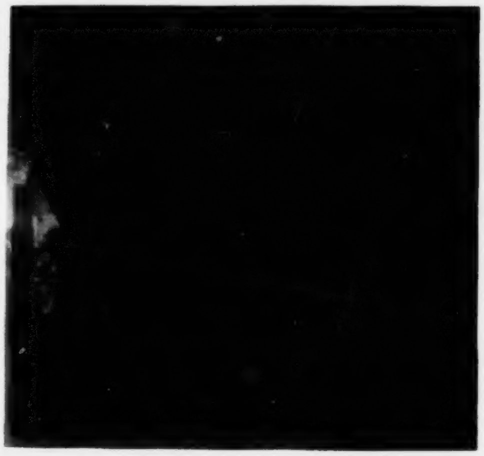


Figure 63. Checking camshaft height.

132. Synchronizing Shutter and Shuttle

The shutter and shuttle mechanism are synchronized to prevent travel ghost. The adjustment requires the use of the intermittent synchronizing gage (4, 9, fig. 22). Proceed as follows:

a. Turn the front and rear camshafts until the registration pin of each is on the right (3-o'clock position).

b. Rotate the shutter until the shutter blades are positioned horizontally (fig. 64).

c. Place the intermittent synchronizing gage over the camshafts and registration pins. Lock the gage in place by installing and tightening the gage locking nut on the front camshaft.

d. Loosen the gage bar locking nut and raise the gage bar until it touches the shutter blades; tighten the gage bar locking nut.

e. Tighten the setscrews in the rear cam gear (14, fig. 50) and shutter gear (25). The shutter and shuttle mechanism are now properly synchronized.

f. Loosen the gage locking nuts and remove the gage. Check the camshafts and shutter shaft for end play and freedom of rotation. End play should not exceed 0.005 inch, and shafts must turn smoothly and freely.

133. Adjusting Film Shoe Clearance

a. With the machine screws loose (8, fig. 31) move the film shoe away from its sprocket and insert the film clearance gage (7, fig. 22) between the film sprocket and the film shoe (fig. 65).

b. Close the film shoe and hold it against the gage; tighten the film shoe attaching screws securely.

134. Checking Horizontal Position of Shuttle

The horizontal position of the shuttle must be accurately maintained to insure that the shuttle teeth enter the film perforations cleanly. The horizontal shuttle position is checked with the shuttle position gage (4, fig. 22). The lens holder and lens mounting must be removed for this check (para 54).

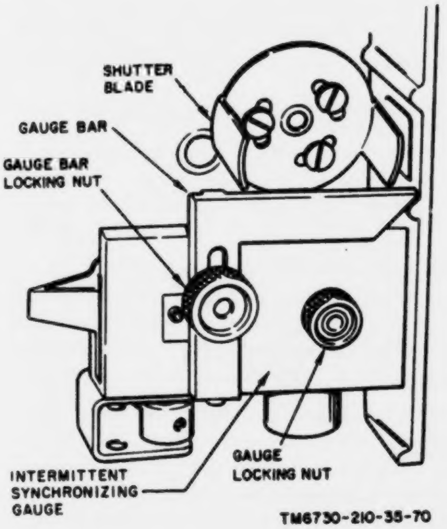


Figure 64. Sychronizing shutter and shuttle.

a. Remove the aperture plate. Place the aperture and shuttle tooth gage on the aperture plate as shown in figure 60. Replace the aperture plate on the projector.

b. Turn the THREADING KNOB clockwise to move the shuttle. The shuttle teeth should enter the slot in the gage without touching either side of the slot.

c. If the shuttle teeth touch the gage, recheck the alignment of the fixed film rail (para 115*a*). If the teeth continue to touch the gage after the fixed film rail has been realigned, check and readjust the height of the front camshaft (para 131).

135. Adjusting Shuttle Protrusion Using Shuttle Tooth Protrusion Gage

The shuttle tooth protrusion gage (5, fig. 22) is used to check that the shuttle center tooth protrudes 0.031 inch (+0.002 inch, −0.001 inch) beyond the surface of the aperture plate and that the aperture plate mounting bracket (43, fig. 50) is absolutely perpendicular to the horizontal position of the shuttle. Proceed as follows:

a. Open the film gate by pulling out the film gate release knob, and remove the pressure plate.

b. Turn the THREADING KNOB clockwise

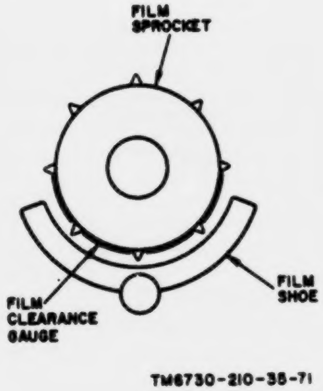


Figure 65. Adjusting film shoe clearance.

to the point where the center shuttle tooth is at maximum protrusion (fig. 66). Loosen the mounting bracket screws just enough to permit movement of the bracket.

c. Place the shuttle tooth protrusion gage flat against the aperture plate, with the cutout side of the gage at the bottom and facing the aperture plate. Press the film gate closing handle to the left to close the film gate against the gage.

d. Shift the aperture plate mounting bracket forward toward the shuttle tooth gage until the center shuttle tooth touches the cutout surface of the gage. Hold the mounting bracket firmly to maintain this adjustment while tightening the bracket attaching screws securely. Open the film gate and remove the gage.

135.1 Adjusting Shuttle Protrusion Using Indicator Type Gage

a. Remove the pressure plate (para 50*a*), the lens holder (para 54), and the lens mounting from the projector.

b. Swing open the lamp house cover and lift it from its hinges.

c. Turn the threading knob until the shuttle tooth is at its maximum protrusion through the aperture plate slot.

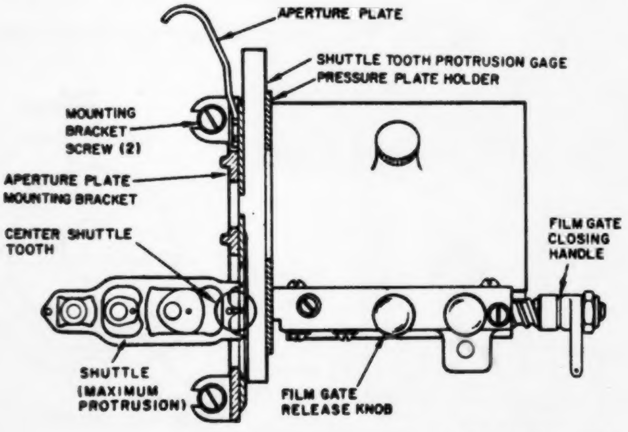
d. Set the shuttle tooth protrusion meter (5, fig. 22) in the shuttle tooth protrusion test fixture (10); place the test fixture on a flat surface (surface plate (13)). Secure the meter in the test fixture.

e. Loosen the setscrew on the meter and zero the meter. Tighten the setscrew.

f. Mount the meter and test fixture on the projector in place of the lens holder and lens mounting: secure it with the two thumbscrews.

g. Hold the vertical portion of the text fixture flush against the aperture plate and note the meter indication. The meter should indicate a shuttle protrusion of 0.031 inch (+0.002 in., −0.001 in.).

h. If the shuttle protrusion is not within tolerance, loosen the aperture plate mounting bracket screws and slide the aperture plate forward or backward to obtain the correct meter indication. Be sure to keep the aperture plate flush against the test fixture. When the correct meter indication is obtained, secure the aperture plate by tightening the aperture plate mounting bracket screws.


APERTURE PLATE
SHUTTLE TOOTH PROTRUSION GAGE
PRESSURE PLATE HOLDER
MOUNTING BRACKET SCREW (2)
APERTURE PLATE MOUNTING BRACKET
CENTER SHUTTLE TOOTH
FILM GATE CLOSING HANDLE
SHUTTLE (MAXIMUM PROTRUSION)
FILM GATE RELEASE KNOB

EL6730-210-35-C3-TM-72

Figure 66. Shuttle tooth protrusion gage in position.

i. Loosen the two thumbscrews on the test fixture and remove the test fixture from the projector.

j. Replace the lamp house cover.

k. Replace the lens holder, the lens mounting, and the pressure plate.

136. Synchronizing Second and Third Sprockets With Shuttle

The sprocket and shuttle synchronizer gage (8, fig. 22) synchronizes the second and third sprockets with the shuttle. Proceed as follows:

a. Loosen the sprocket setscrews slightly and turn both sprockets so that one of the setscrews is accessible on the righthand side of the sprocket.

b. Turn the THREADING KNOB clockwise until the shuttle is at maximum protrusion.

c. Place the sprocket and shuttle synchronizer gage on the two film sprockets so that the teeth on both sprockets enter the grooves in the gage (fig. 67). Hold the gage perpendicular while tightening the accessible setscrew in each sprocket.

d. Remove the gage and tighten the remaining setscrew in each sprocket. Check each sprocket to be sure that end play does not exceed 0.0005 inch.

137. Adjusting Drive Motor Governor

a. With the projector threaded and connected to a 105- to 129-volt, 50- to 65-cps ac source, turn the OFF–MOTOR–LAMP switch to MOTOR.

b. Check the speed of the THREADING KNOB while the projector is running. If the speed is not 1,440 revolutions per minute (rpm), the drive motor governor must be adjusted (*c* below).

c. Turn the OFF–MOTOR–LAMP switch to OFF; loosen the locknut on the governor adjusting screw (fig. 68) and turn the adjusting screw clockwise to increase the drive motor speed, or counterclockwise to decrease the drive motor speed. Tighten the locknut.

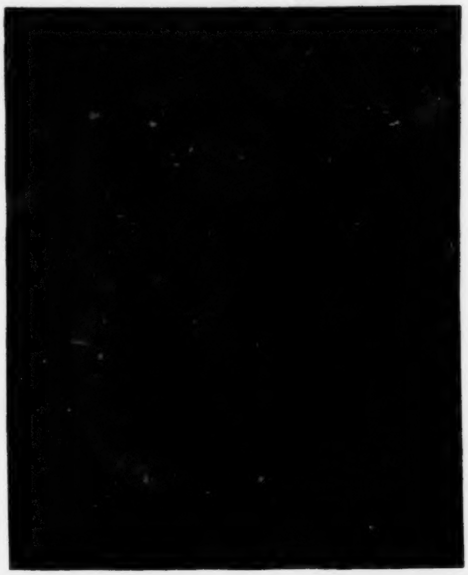


Figure 67. Sprocket and shuttle synchronizer gage in position.

d. Repeat the procedure outlined in *c* above until the correct drive motor speed is obtained.

138. Adjusting THREADING KNOB

The THREADING KNOB position must be adjusted in relation to the center shuttle tooth. Proceed as follows:

a. Open the film gate and remove the pressure plate and aperture plate. While watching the shuttle, turn the THREADING KNOB clockwise until the center shuttle tooth is at its maximum protrusion in the center of the stroke. At this point, the words *THREADING KNOB* should be upright and in a horizontal plane.

b. To adjust the knob, loosen the two setscrews in the hub of the sprocket (2, fig. 50) and turn the THREADING KNOB until the words are upright and horizontal. Tighten the setscrews securely.

c. Reinstall the pressure plate and the aperature plate.

139. Adjusting Feed Reel Tension
(fig. 69)

The feed reel arm friction clutch should be adjusted to prevent the feed reel overrunning during projection. Proceed as follows:

a. Make sure that the rewind knob is out (disengaged).

b. Place an empty reel on the feed reel arm. Wind approximately 10 feet of film on the reel.

c. Use a 0- to 2-pound spring scale hooked to a film sprocket hole, and measure the pull required to pull the film off the reel.

d. Loosen the capnut.

e. Adjust the tension nut to obtain a 1- to 3-ounce pull.

f. Tighten the capnut.

140. Adjusting Takeup Reel Tension
(fig. 69)

The takeup reel arm friction clutch should be adjusted to take up film without forcing. Proceed as follows:

a. Place an empty reel on the takeup reel arm. Wind approximately 10 feet of film on the reel.

b. Use a 0- to 2-pound spring scale hooked to a film sprocket hole, and measure the pull required to pull the film off the reel.

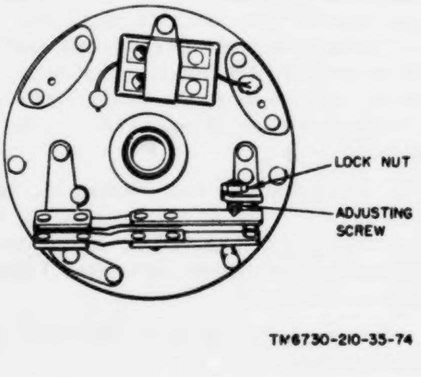


Figure 68. Drive motor governor adjustment.

c. Loosen the capnut.

d. Adjust the tension nut to obtain a 3- to 5-ounce pull.

e. Tighten the capnut.

141. Adjusting Projection Lamp
(fig. 70)

The projection lampholder is moved toward and away from the lens and toward and away from the mechanism plate to provide even light distribution at the screen.

a. With no film threaded in the projector, place the OFF–MOTOR–LAMP switch at LAMP to project a rectangle of light on the screen. Focus the image of the aperture sharply.

b. Use adjustment lever 2 to move the lamp socket toward or away from the lens; use adjustment lever 1 to move the lamp socket toward or away from the mechanism plate. Adjust these levers until the image of the aperture on the screen is uniform and at the highest level of illumination. If adjustment will not produce uniform brillance, replace the projection lamp and repeat the adjustment.

142. Adjusting Sound System, Final
(fig. 71)

Alignment of the optical sound system is required after reassembly of the soundhead assembly insure proper magnetic sound reproduction. Proceed as follows:

a. Impedance Roller Tension Adjustment. The impedance roller should exert 5 to 6 ounces of pressure on the film as it passes around the sound drum. To check for proper pressure, proceed as follows:

(1) Hook the spring scale under the roller support and note the tension required to lift the roller from the sound drum.

(2) If the tension is not 5 to 6 ounces, loosen the impedance roller mounting screw and rotate the entire roller assembly clockwise to decrease, or counterclockwise to increase the tension until it is between 5 and 6 ounces.

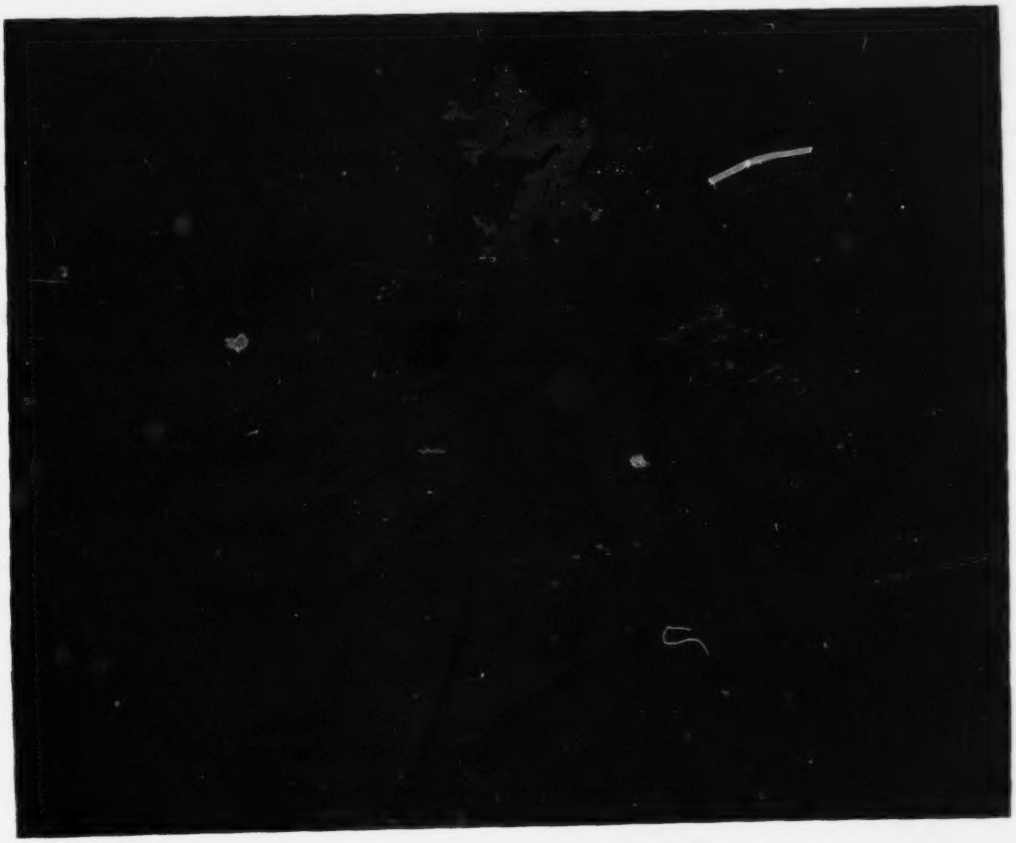


Figure 69. Checking reel tension.

Tighten the impedance roller mounting screw securely.

b. Preliminary Sound System Checks.

(1) Connect the equipment for normal operation, and press the OPTICAL button on the soundhead. Turn the amplifier VOLUME control to approximately midposition and the TONE control to NOR (normal).

(2) Turn the OFF-MOTOR-LAMP switch to the LAMP position. The red jewel on the exciter lamp cover should glow, indicating that the exciter lamp is operating.

(3) Insert a clean white card between the sound drum and the scanner lens. Move the card back and forth in this gap to interrupt the scanning light beam. If the sound system is operating properly, a thumping sound will be heard in the speaker. If the thumping sound is not heard, check the prism installation (para 100) or the sound drum positioning (para 103). If the thumping noise is heard, proceed with the sound system adjustments (*e* below).

c. Buzz-Track Test Film Adjustment. This adjustment determines if the impedance roller is in the proper lateral position with relation to the scanning beam.

(1) Thread the projector with a 3-foot

loop of buzz-track test film. The emulsion side of the film should face the scanner lens. Press the OPTICAL button on the soundhead.

(2) Turn the amplifier VOLUME control to approximately midposition and the TONE control to NOR (normal).

(3) Turn the OFF-MOTOR-LAMP switch to LAMP and operate the projector.

(4) If the impedance roller is in proper lateral position, the low signal (300 cps) and high signal (1,000 cps) will not be heard in the speaker

Figure 70. Projection lamp adjustment levers.

or, at most, there will be only a faint reproduction of equal intensity from both signals.

(5) If the low signal (300 cps) comes through the speaker with comparative loudness, loosen the screw in the scanning adjusting nut and turn the adjusting nut slowly counterclockwise until the low signal is very faint or is not heard. Do not turn the nut so far that the high signal (1,000 cps) becomes evident. Tighten the adjusting nut screw.

(6) If the high signal (1,000 cps) comes through the speaker fairly loud, loosen the screw in the scanning adjusting nut (fig. 58) and turn the adjusting nut clockwise until the high signal is very faint or is not heard. Tighten the adjusting nut screw.

(7) Turn the OFF-MOTOR-LAMP switch to OFF, and remove the loop of buzz-track film.

d. Adjusting Uniformity of Scanning Beam Illumination. The uniformity of scanning beam adjustment requires the use of Multimeter ME-26(*)/U and a loop of 1,000-cycle test film. Proceed as follows:

(1) Thread the projector with the loop of test film, and connect the ME-26(*)/U across the speaker terminals of the amplifier.

(2) Turn the OFF-MOTOR-LAMP switch to LAMP. The position of the sound track, relative to the ends of the light beam at any instant, is shown by the animated diagram appearing in the picture area of the projected film.

(3) Read the variations in the output level of the 1,000-cycle tone. If the variation does not exceed ±1.5 decibels, the projector has satisfactory uniformity of scanning beam illumination.

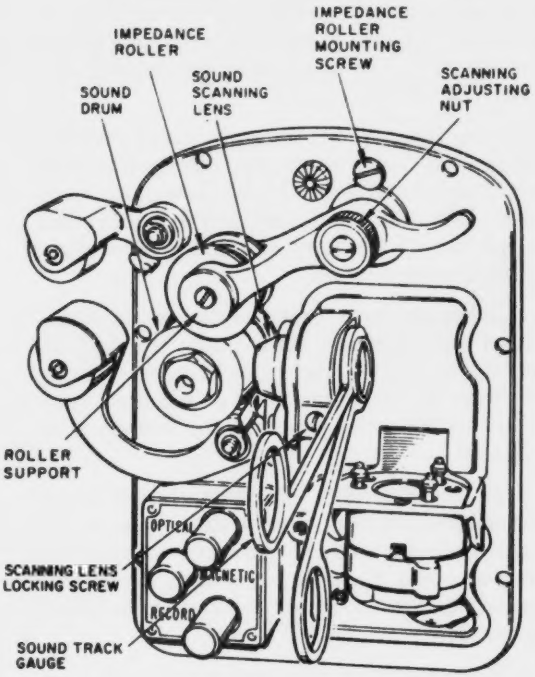
(4) If the variation is greater than ±1.5 decibels, check for dirt on the exciter lamp, the scanner lens, or the light pipe prism; for a deformed exciter lamp filament; or for misalignment of the exciter lamp. Clean and make repairs and replacements as necessary to bring the scanning beam illumination within the ±1.5-decibel limit.

e. Focus and Azimuth Adjustment. Use Voltmeter ME-30(*)/U, the sound track gage (1, fig. 22), and two strips of 7,000-cycle focusing test film. Splice the two strips of film into a single loop, one strip with the emulsion to the outside and the other strip with the emulsion to the inside of the loop. Proceed as follows:

(1) Thread the projector with the loop of test film.

(2) Connect a 16-ohm noninductive resistor across pins 1 and 3 of the REMOTE SPEAKER receptacle, and connect Voltmeter ME-30(*)/U across the 16-ohm load.

(3) Remove the exciter lamp cover and the exciter lamp, and loosen the scanner lens locking screw (fig. 71). Place the sound track gage on



TM6730-210-35-77

Figure 71. Adjusting sound system.

the scanner lens as shown in figure 71. Reinstall the exciter lamp.

(4) Switch the amplifier power switch to ON and set the TONE control at NOR (normal) and the VOLUME control at 4. Press in the soundhead OPTICAL button and place the OFF-MOTOR-LAMP switch at LAMP.

(5) With the projector running, move the scanner lens toward and away from the exciter lamp and rotate it in its holder until a reading of maximum output and minimum distortion is obtained on the voltmeter for each strip of the test film loop.

NOTE

There may be several points where the output will increase and then decrease again, but there will be only one true optimum point for each strip of the test film loop. Adjust the scanner lens to the point that is midway between the optimum points for the emulsion side in and the emulsion side out.

(6) When the adjustment has been obtained, tighten the scanner lens locking screw securely. Be sure that the reading on the meter does not change as the screw is tightened. Remove the adjusting tool and disconnect the test equipment.

Section V. MIXER-AMPLIFIER REPAIRS

143. Parts Replacement Techniques, Mixer-Amplifier

(figs. 72, 72.1, 72.2)

a. When removing components, mark the leads and make a careful note of the manner in which leads are dressed. Wiring connections are shown in the mixer-amplifier wiring diagram (fig. 101).

b. When removing the gain control knobs, rotate each knob maximum counterclockwise before loosening the retaining setscrew. When the knob is reinstalled, align the indicating line on the knob with the zero mark on the panel for proper installation.

c. When replacing gain control variable resistors R301 through R304, rotate the shaft of the replacement resistor to its extreme counterclockwise position; install the gain control knob so that its indicating line is at the zero mark on the panel.

d. If it is necessary to remove riveted parts, drill out the old rivet with a drill equal to, or slightly smaller than, the diameter of the rivet being removed. Support the chassis firmly and squarely to prevent distortion during the riveting process.

e. If the soldering iron used for maintenance requires ac voltage, use an isolating transformer between the soldering iron and the line.

f. The amplifier case and cover are a matched pair; if one is defective, both must be replaced.

144. Mixer-Amplifier Disassembly

(fig. 72)

a. Unlatch and remove the case cover (1). Remove the self-locking nut (2) and remove the rubber foot (3) from the cover.

b. Remove the hexagonal nuts (4) and the lockwashers (5) and remove the rubber feet (6) near the open end of the amplifier case (23). Remove the machine screws (7), the lockwashers (8), and the flat washers (9), and withdraw the amplifier chassis (10) from the case.

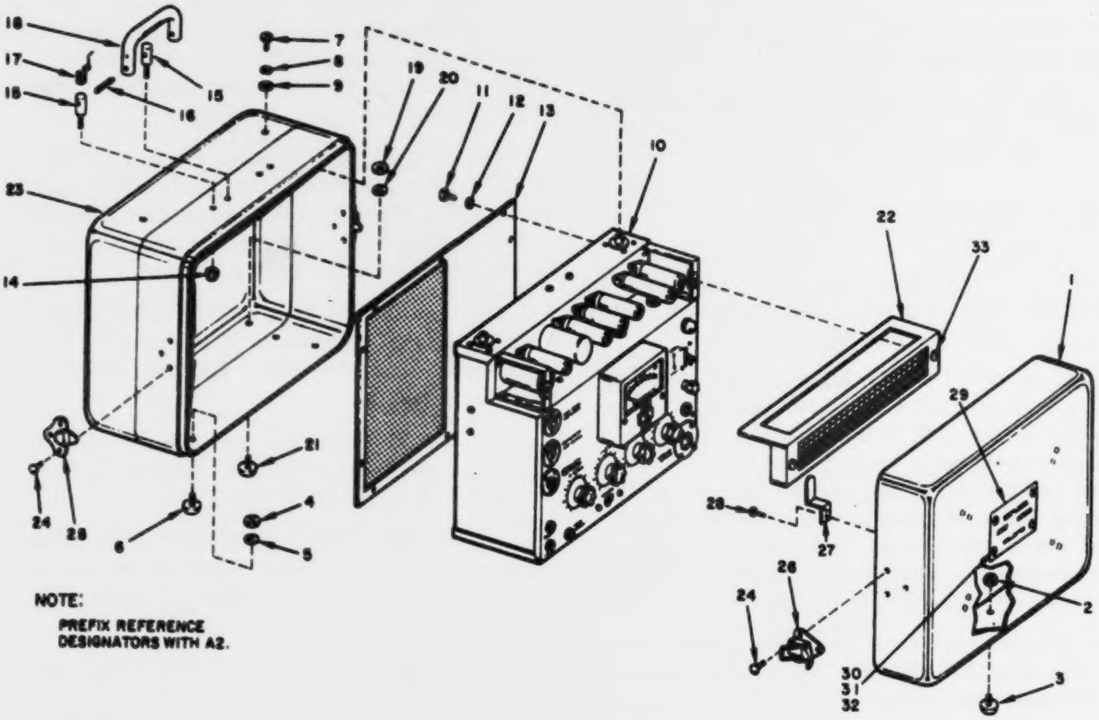
c. To expose the amplifier tubes for testing, remove the tube ventilating screen (22) by twisting the captive fasteners one-quarter turn counterclockwise. To expose the amplifier wiring and electrical components for inspection and replacement, remove the machine screws (11), the lockwashers (12), and the rear protective screen (13).

d. Remove the self-locking nuts (14) from the threaded ends of the case handle posts (15) to free the carrying handle (18) from the case. Note the manner in which the case handle pins (16) and the torsion springs (17) are installed.

e. Remove the hexagonal nuts (19) and the lockwashers (20) and remove the inner rubber feet (31) from the case. The drawbolt strike (25) and drawbolt catch (26) are secured to the case with tubular rivets (24); do not remove unless defective.

145. Cleaning and Repair

a. Inspect all wiring for loose connections and for breaks or badly frayed spots. Tighten or resolder loose connections; replace broken or badly frayed wire leads.



NOTE:
PREFIX REFERENCE DESIGNATORS WITH A2.

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1	Case cover A2A7
2	Self-locking nut A2H1
3	Rubber foot A2A1
4	Plain hexagonal nut A2H2
5	Lockwasher A2H3
6	Rubber foot A2A3–A5
7	Machine screw H1
8	Lockwasher H3
9	Flat washer H2
10	Amplifier chassis A1A3
11	Machine screw A1H37
12	Lockwasher A1H38
13	Protective screen, rear A2A1MP1
14	Self-locking nut A2H9
15	Case handle post A2H11
16	Case handle pin A2H10
17	Torsion spring A2H12
18	Carrying handle A2MP1
19	Plain hexagonal nut A2H2
20	Lockwasher A2H3
21	Rubber foot A2A2
22	Tube ventilating screen A1A6
23	Amplifier case A2A6
24	Tubular rivet A2H7
25	Drawbolt strike A2H8
26	Drawbolt catch A2H6
27	Cable holder A2A7MP1–4
28	Rivet A2A7H1
29	Plate MP1
30	Nut H4
31	Screw A2H5
32	Washer H6
33	Stud A1A6H1

Figure 72. Mixer-amplifier case, exploded view.

b. Straighten bent structural parts.

c. Do not use cleaning solutions to clean electrical parts. Merely wipe such parts with a dry cloth and blow away dust or lint with a low-pressure jet of dry compressed air.

d. If relay contacts are dirty, clean them with crocus cloth to remove hardened dirt or possible corrosion spots; and then wipe with a dry cloth.

e. Clean structural parts (case, cover, control panel, brackets, etc) with a lint free cloth.

f. Before reassembling parts into the amplifier chassis, remove all dust and lint from the chassis interior.

146. Reassembly
(fig. 72)

a. Secure the inner rubber feet (21) to the amplifier case (23) with the hexagonal nuts (19) and the lockwashers (20).

b. Assemble the case handle posts (15) and the torsion springs (17) to the carrying handle (18) with the case handle pins (16). Note that the pin must pass through the small loop of each torsion spring and that the bent leg of the spring must be inserted into the small hole just above the pinhole in the handle. Position the assembled handle on the case and install the self-locking nuts (14).

c. Position the rear protective screen (13) on the amplifier chassis (10) so that the unperforated area is located in front of the power transformer, and secure with the machine screws (11) and the lockwashers (12). Secure the tube ventilating screen (22) in place by turning its captive fasteners one-quarter turn clockwise.

d. Carefully insert the amplifier chasssis into the case and secure it with the machine screws (7), the lockwashers (8), and the flat washers (9).

e. Secure the rubber feet (6) to the front edge of the case with the hexagonal nuts (4) and the lockwashers (5). Assemble the rubber foot (3) to the case cover (1) with the self-locking nut (2).

147. Adjusting Mixer-Amplifier

Perform the audio-bias check and adjustment after the mixer-amplifier is repaired. Use Voltmeter ME-30(*)/U and Audio Oscillator TS-382(*)/U and proceed as follows:

a. Connect the special dummy load (fig. 16) to OUTPUT TO PROJ receptacle J305 and connect the ME-30(*)/U across the dummy load 1-ohm resistor. Connect the mixer-amplifier power cable to a 118-volt ac source.

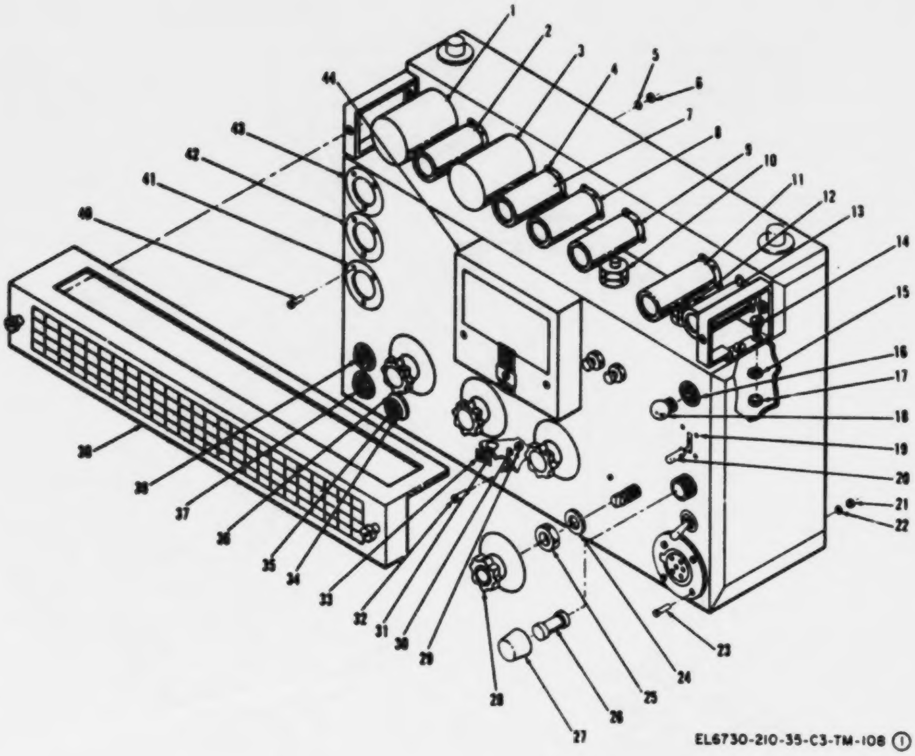
b. Connect the TS-382(*)/U to CHANNEL 3 PROJ. INPUT receptacle J303 and turn the CHANNEL 3 and the MASTER gain controls fully clockwise.

c. Set the TS-382(*)/U for 400 cycles and adjust the oscillator output to obtain a reading of .1 millivolt on the ME-30(*)/U.

d. Loosen the R307 locking nut; press AUDIO switch S302. Adjust R307 to obtain a reading of zero on meter M301. Tighten the R307 locking nut.

e. Disconnect the TS-382(*)/U from the mixer-amplifier. Move RECORD-STOP switch S304 to RECORD and release the switch. Loosen the R306 locking nut; press BIAS switch S303. Adjust R306 to obtain a reading of 4.2 millivolts on meter M301. Tighten the R306 locking nut.

f. Disconnect the mixer-amplifier power cable and remove all test equipment.



Note. **Prefix reference designators with A2A1.**

1	Transformer T301
2	Shield E1
3	Transformer T302
4	Machine screw H54-H57
5	Washer H55-H58
6	Hex nut H53-H56
7	Shield E2
8	Shield E3
9	Shield E6
10	Resistor, variable R307
11	Shield E5
12	Resistor, variable R306
13	Shield E4
14	Screw H2
15	Washer H3
16	Indicator light XDS301
17	Hex nut H1
18	Lamp DS301
19	Screw H59
20	Switch S304
21	Hex nut H28
22	Washer H30
23	Screw H29
24	Washer H40
25	Nut H39
26	Fuse F301
27	Fuse holder XF301
28	Knob MP2-MP5
29	Hex nut H62
30	Washer H64
31	Capacitor C309
32	Screw H63
33	Switch S305
34	Nut H51
35	Resistor, variable R305
36	Washer H52
37	Jack J306
38	Jack J307
39	Screen assembly A6
40	Screw H23-H26
41	Connector J303
42	Connector J302
43	Connector J301
44	Indicator, volume level M301

Figure 72.1 Mixer-amplifier, amplifier assembly, front side, exploded view.

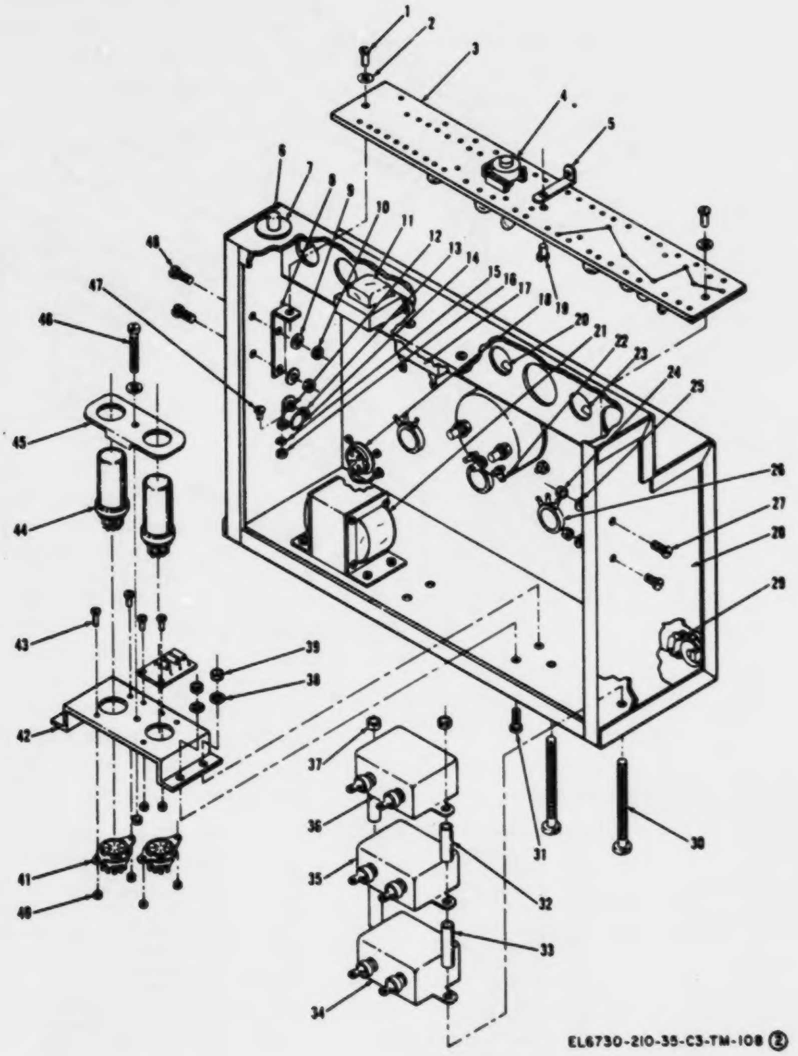


Figure 72.2 Mixer-amplifier, amplifier assembly, rear side, exploded view.

Note. Prefix reference designators with A2A1.

1 Screw H35
2 Washer H36
3 Terminal board assembly A5
4 Coil assembly A11
5 Bracket A5MP1
6 Stud E9
7 Washer MP6
8 Bracket assembly A1
9 Washer H13
10 Nut H1
11 Transformer T303
12 Nut H9
13 Clamp H8
14 Clamp H7
15 Washer H12
16 Washer H13
17 Capacitor C306
18 Lead assembly W4
19 Screw A5H5
20 Resistor R308
21 Transformer T304
22 Terminal E8
23 Resistor R316
24 Nut H1
25 Washer H3
26 Resistor, variable R301
27 Screw H2
28 Chassis assembly A3
29 Resistor A5R328
30 Screw H17
31 Screw H32
32 Spacer H18
33 Spacer H18
34 Capacitor C327
35 Capacitor C328
36 Capacitor C303
37 Nut H16
38 Washer H33
39 Nut H31
40 Nut A4H1
41 Socket A4XC301
42 Bracket assembly A4
43 Screw A4H2
44 Capacitor C301
45 Clamp H14
46 Screw H15
47 Screw H11
48 Screw H2

Figure 72.2—Continued.

b. Test Films.

Test film	Federal stock No.
Uniformity of scanning beam illumination.	6760-298-1995
400-cycle, magnetic	6770-056-7030
7,000-cycle (focusing)	6770-286-7873
Buzz track	6770-248-9262
Multifrequency	6770-242-8015
Multifrequency, magnetic	6770-056-7031
Picture unsteadiness	6770-290-6450
Travel ghost	6770-056-7029
Academy	6770-290-6449
Newly processed 16-mm motion picture film (8 ft)[a].	6750-246-3728

[a] Any processed 16-mm film which is not worn or scratched may be used.

c. Tools.

Tool	Federal stock No.
Rule, steel[a]	5210-273-1965
Scale, weighing 0 to 2 lb.[a,b]	6670-291-8721
Screwdriver TL-358/U[a,c]	5120-277-9491

[a] Part of Tool Equipment TK-24/GF.

[b] Part of Tool Kit, Photographic Repair TK-109/GF.

[c] Part of Tool Kit, Photographic Repairman TK-77/GF.

d. Other Equipment.

Equipment	Federal stock No.
Resistor, 16 ohms, 38 watts[a]	5905-539-4984
Screen, Projection BM-1(1)	6730-224-9818
Splicer, Photographic Film FM-3(1).	6740-291-5840
Transformer, Variable Power CN-16(*)/U[b].	5950-503-0632
Wire, 6 feet[c]	-------------

[a] Any available resistor or combination of resistors providing 8 ohms resistance and dissipating 38 watts of power may be used.

[b] Indicates Transformers CN-16/U, or Transformer, Variable Power CN-16B/U.

[c] Any insulated stranded copper wire, No. 20 AWG or larger may be used.

CHAPTER 5
FOURTH ECHELON TESTING PROCEDURES

148. General

a. Test procedures are prepared for use by Signal Field Maintenance Shops and Signal Service Organizations responsible for fourth echelon maintenance to determine the acceptability of repaired signal equipment. These procedures set forth specific requirements that repaired signal equipment *must* meet before it is returned to the using organization. The testing procedures may also be used as a guide for testing equipment repaired at third echelon if the proper tools and test equipment are available. A summary of the performance standards is given in paragraph 167.

b. Each test depends on the preceding one for certain operating procedures and, where applicable, for test equipment calibrations. Comply with the instructions preceding each chart before proceeding to the chart. Perform each test in sequence. Do not vary the sequence. For each step, perform all the actions required in the *Control settings* columns, and then perform each specific test procedure and verify it against its performance standard.

149. Test Equipment, Tools, and Materials

All test equipment, tools, and materials required to perform the testing procedures given in this section are listed in the following charts and are authorized under TA 11-17, Signal Field Maintenance Shops and TA 11-100 (11-17), Allowances of Signal Corps Expendable Supplies for Signal Field Maintenance Shops, except as noted.

a. Test Equipment.

Test equipment	Federal stock No.	References
Adapter, Test MX-1572/U (p/o TS-352(*)/U)	6625-500-4508	None
Analyzer, Spectrum TS-723(*)/U[a]	6625-668-9418	TM 11-5097
Audio Oscillator TS-382(*)/U[b]	6625-192-5094	TM 11-6625-261-12
Cable Assembly, Radio Frequency CG-409(E)/U (p/o TS-382(*)/U).	6625-537-5617	None
Dummy Load DA-35/U (p/o TS-382(*)/U)	5935-433-9938	None
Flutter Indicator ID-851/U	6760-776-6979	TM 11-6760-212-12
Frequency Meter FR-67/U[c]	6625-356-0256	TM 11-2698
Frequency Meter AN/TSM-16	6625-542-1666	TM 11-6625-218-12
Light Assembly, Electric MX-1292/PAQ	6695-537-4470	TM 11-5540
Meter, Foot Candle, Photoelectric ME-86/U	6697-641-5083	None
Multimeter ME-26(*)/U[d]	6625-360-2493	TM 11-6625-200-12
Multimeter, TS-352(*)/U[e]	6625-242-5023	TM 11-5527
Tachometer, Electronic TS-806/U	--------------	TB SIG 306
Test Lead Set CX-1331A/U	6625-395-9313	None
Voltmeter, Electronic ME-30(*)/U[f] (two required)	6625-669-0742	TM 11-6625-320-12

[a] Indicates TS-723A/U, TS-723B/U, or TS-723C/U.

[b] Indicates TS-382A/U, TS-382B/U, TS-382D/U, TS-382E/U, or TS-382F/U.

[c] If not available, use Frequency Meter AN/TSM-16.

[d] Indicates Multimeter, Meter ME-26/U or ME-26A/U, or Multimeter ME-26B/U.

[e] Indicates TS-352/U, TS-352A/U, and TS-352B/U. Multimeter AN/URM-105 may be used, if available.

[f] Indicates Voltmeter, Meter ME-30A/U; Voltmeters, Electronic ME-30B/U, ME-30C/U, ME-30D/U, or ME-30E/U.

150. Physical Tests and Inspection

a. *Test Equipment and Materials.* Light assembly, Electric MX-1292/PAQ.

b. *Test Connections and Conditions.*

(1) Do not connect the AS-7A to a power source.

(2) Install the wide-transmission filter on the MX-1292/PAQ.

Note: The moisture-fungiproofing (MFP) check should be made upon completion of repairs, but before reinstallation of the equipment in its case.

c. *Procedure.*

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	N/A	None.	*Projector:* a. Inspect projector for missing screws, nuts, and other small parts. b. Inspect condition of rubber feet on projector legs and tilt leg. c. Inspect projector for evidence of physical damage, condition of finish, panel lettering, and decals. *Note:* Touchup painting is recommended whenever practicable instead of refinishing. Screwheads, binding posts, receptacles, and plated fastener parts will not be painted or polished with abrasives.	a. All screws and nuts are tight. No parts are missing. b. Rubber feet are not cut, torn, or badly damaged. c. No damage is evident. Painted surfaces do not show bare metal. Panel lettering is legible; decals are in good condition.
2	N/A	None.	a. Open lamphousing and inspect reflector for cracks and discoloration. Inspect condenser lens assembly for cracks, chips, and scratches. Close lamphousing. b. Operate film gate release knob c. Turn focusing knob throughout its limits of travel. d. Loosen lens-locking screw and remove projection lens. Inspect elements of projection lens for cracks, chips, scratches, dirt between elements, and condition of mountings. Replace projection lens and tighten lens locking screw.	a. Reflector is free from cracks and discoloration. Condenser lens assembly is free from cracks, chips, and scratches. b. Projection lens mounting assembly moves freely, without binding or excessive looseness. c. Projection lens carriage assembly moves freely, without binding or excessive looseness. d. Lens elements are free from cracks, chips, and scratches. There is no dirt between elements. Elements are firmly mounted.
3	N/A	None.	a. Turn leveling screw all the way in, and then all the way out. b. Turn elevation knob fully counterclockwise c. Turn elevation knob fully clockwise	a. Leveling screw turns freely without binding, and does not come free of projector leg. b. Front of projector is raised and stays in position without slipping. c. Front of projector is lowered. Elevation leg retracts from work surface.
4	N/A	None.	a. Turn OFF-MOTOR-LAMP switch to each position. b. Operate THREADING LAMP switch and REWIND switch to both positions. c. Press MAGNETIC button OPTICAL button, and RECORD button sequentially.	a. Switch detents are positive. Knob is tight on shaft and properly indexed. b. Switch action is positive. c. Each button moves freely, without binding, and remains in position.
5	N/A	None.	*Mixer-Amplifier:* a. Inspect mixer-amplifier for loose and missing screws, nuts, and other small parts. b. Inspect condition of rubber feet c. Inspect mixer-amplifier for evidence of physical damage and for condition of finish and panel lettering. *Note:* Touchup painting is recommended whenever practicable instead of refinishing. Screwheads, binding posts, receptacles, and plated fastener parts will not be painted or polished with abrasives. d. Turn GAIN controls throughout their limits of travel and operate other controls to each position.	a. All screws and nuts are tight. No parts are missing. b. Rubber feet are not cut, torn, or badly damaged. c. No damage is evident. Painted surfaces do not show bare metal. Panel lettering is legible. d. Controls operate freely, without binding or excessive looseness. Knobs are tight and properly indexed.
6	N/A	None.	*Speaker:* a. Inspect speaker case for loose and missing screws and other small parts. b. Inspect case for evidence of physical damage and for condition of finish. c. Inspect condition of rubber feet d. Inspect speaker cone for tears, punctures, and warpage.	a. All screws are tight. No parts are missing. b. There is no evidence of physical damage. Painted surfaces do not show bare metal. c. Rubber feet are not cut, torn, or badly damaged. d. Speaker cone is free from tears, punctures, and warpage serious enough to cause distortion or rattling.
7	N/A	None.	*Cables, covers, and cases:* a. Inspect all cables for cuts, abrasions, and signs of deterioration of insulation, and for condition of terminating plugs and receptacles. b. Check length of each cable. Check for presence of grounding wire. c. Inspect three fabric dust covers for holes, tears, and extensive wear. d. Inspect cases for loose and missing parts, and condition of finish. e. Inspect interior of transit cases for condition of rubber shock pads.	a. Cables are free from cuts, abrasions, and signs of serious deterioration. Plugs and receptacles are intact and free from damage. b. Power cables are not less than 14 feet long. Each power cable has grounding wire not less than 4 inches long. c. Dust covers are in serviceable condition. d. There are no parts missing. Finish is satisfactory. e. Rubber shock pads are not loose, torn, or deteriorated.
8	*MX-1292/PAQ* 245V FOR MV LAMP: OFF	None.	*MFP:* a. Connect power cord of MX-1292/PAQ to power source. Turn 245V FOR MV LAMP switch ON. b. Expose areas that have been repaired or disturbed to rays of lamp. *Note:* Moisture-fungiproofing varnish glows gray green when exposed to rays of mercury-vapor lamp.	a. None. b. All electrical components, wires, and chassis surfaces show unbroken coverage. There is no varnish on switch contacts or moving parts of mechanical assemblies.
9	None.	None.	*MWO's:* Check equipment for applicable modification work orders and proper markings.	Equipment bears markings showing that all applicable MWO's have been performed.

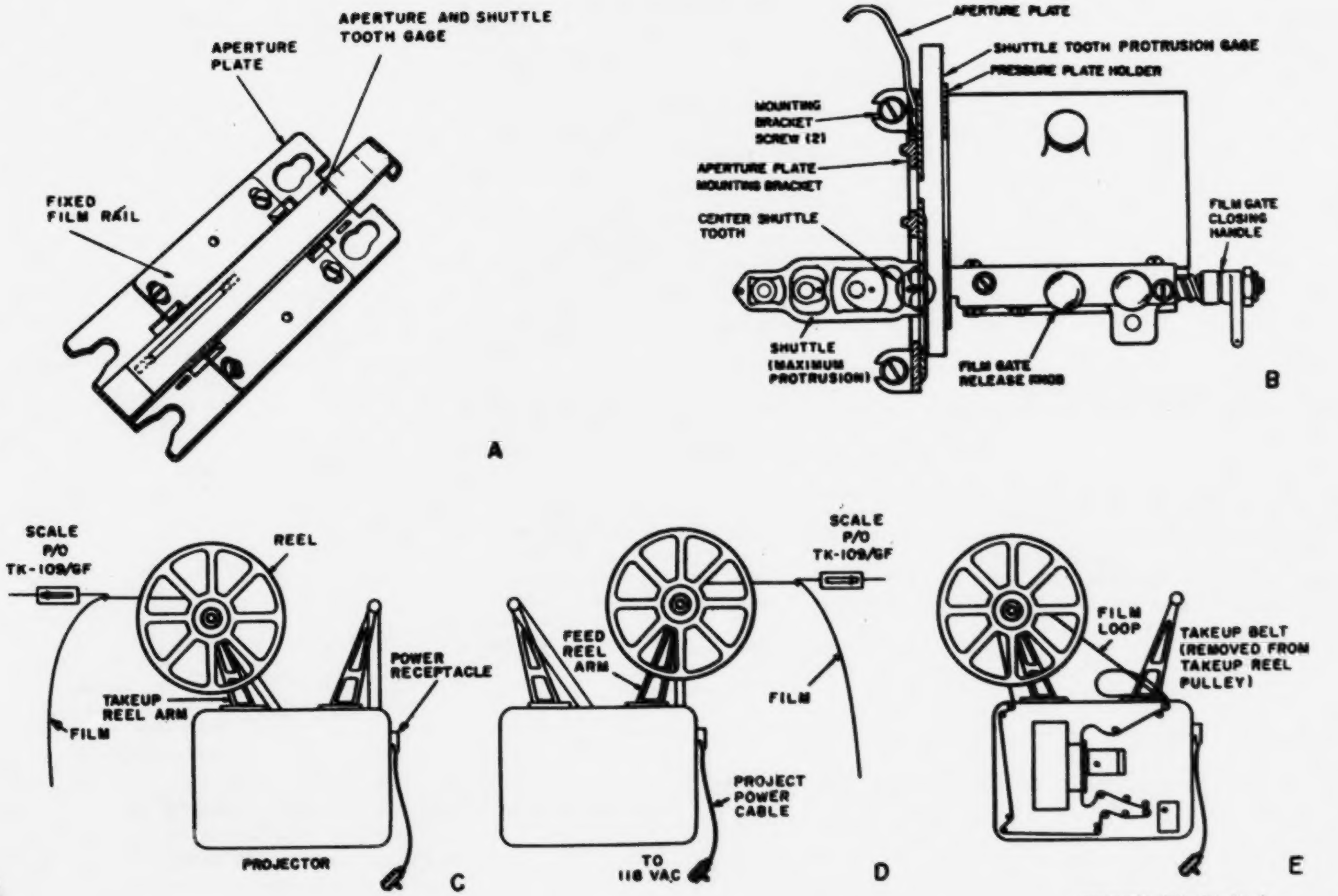


Figure 72.3 Mechanical tests.

151. Mechanical Tests

a. Test Equipment and Materials.
- (1) Shuttle tooth protrusion gage.
- (2) Aperture and shuttle tooth gage.
- (3) Scale, weighing, 0-2 pounds.
- (4) Newly processed 16-mm motion picture film, 8 feet.

b. Test Connections and Conditions. Set up the equipment for the tests (*c* below) as shown in figure 72.3.

c. Procedure.

Step No.	Control settings		Test equipment	Performance standard
	Test equipment	Equipment under test		
1	None	None	*Fixed film rail and shuttle tooth lateral alignment:* *a.* Remove aperture plate and place aperture and shuttle tooth gage in aperture plate as shown in A, figure 72.3. *b.* Place aperture plate with gage installed back in projector and rotate threading knob.	*a.* Fixed film rail must be flush against gage when gage pins are in aperture plate shuttle tooth slot. *b.* Shuttle tooth should not touch sides of slot on gage.
2	None	None	*Shuttle tooth protrusion:* *a.* Place shuttle tooth protrusion gage in projector as shown in B, figure 72.3. *b.* Rotate threading knob and observe shuttle tooth and gage.	*a.* None. *b.* Center shuttle tooth must touch cutout surface of gage without moving gage.
3	None	None	*Takeup reel tension:* *a.* Wind several turns of film around hub of reel. Attach scale to film by putting scale hook through a sprocket hole (C, fig. 72.3). *b.* While holding scale body firmly in hand, pull scale away from projector; this causes reel to turn. Note indication on scale.	*a.* None. *b.* Scale indicates 3 to 5 oz.
4	None	None	*Feed reel tension:* *a.* Place reel on feed reel arm (D, fig. 72.3) *b.* Repeat step 3*a* ***Caution:*** *Be sure that rewind knob is disengaged.* *c.* Repeat step 3*b*	*a.* None. *b.* None. *c.* Scale indicates 1 to 3 ozs.
5	None	None	*Film life:* *a.* Splice two ends of 8-foot strip of film together to form loop. Remove takeup belt from takeup reel pulley. Place film loop	*a.* None.

			over reel and put reel on takeup arm, and then thread projector (E, fig. 72.3).	
			b. Set OFF-MOTOR-LAMP switch to MOTOR. Allow projector to run for 20 minutes.	*b.* None.
			c. Set OFF-MOTOR-LAMP switch to OFF. Remove film loop and examine it closely for signs of wear and damage.	*c.* Film loop has not scratches or damaged areas. Sprocket holes do not show signs of wear.

152. Projection Tests
(fig. 73)

a. Test Equipment and Materials.
- (1) Meter, Foot Candle, Photoelectric ME-86/U.
- (2) Screen, Projection BM-1(1).
- (3) Rule, steel, 6 inches long.
- (4) Test film, academy.
- (5) Test film, picture unsteadiness.
- (6) Test film, travel ghost.

b. Test Connections and Conditions.
- (1) Set the projector OFF-MOTOR-LAMP switch and REWIND switch to OFF.
- (2) Set the amplifier ON-OFF switch to OFF.
- (3) Connect the equipment for operation.
- (4) Set up the BM-1(1) about 18 feet from the projector (A, fig. 73).

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	None	*Projector* OFF-MOTOR-LAMP switch: OFF REWIND switch: OFF *Apmlifier* TONE: NOR VOLUME control: zero ON-OFF switch: ON	*Projector set operation* *a.* Thread projector with test film academy *b.* Turn amplifier VOLUME control throughout its limits of travel. Listen for static from speaker. *c.* Set VOLUME control at 5. Turn TONE control throughout its limit of travel.	*a.* None. *b.* Rotation of VOLUME control does not cause static in speaker. *c.* Rotation of TONE control does not cause static in speaker.
2	None	Same as step No. 1	*Caution:* Be sure that rewind knob is *out.* *a.* Turn OFF-MOTOR-LAMP switch to LAMP. *b.* Adjust focusing knob for sharply focused picture. Adjust FRAMER knob if necessary. *c.* Turn amplifier VOLUME control clockwise for desired sound level. *d.* Observe picture quality and listen to sound quality as film is projected. *e.* Allow test film to run through projector; then turn OFF-MOTOR-LAMP switch to OFF and rewind film.	*a.* None. *b.* None. *c.* None. *d.* Both sound and picture quality are good. *e.* None.
3	None	Same as step No. 1, except:	*Steadiness* *a.* Thread projector with test film, picture unsteadiness.	*a.* None.

		Amplifier ON–OFF switch: OFF	*Caution:* Be sure that rewind knob is *out.*	
			b. Turn OFF–MOTOR–LAMP switch to LAMP. Adjust focusing knob for sharply focused picture.	*b.* None.
			c. Measure any vertical displacement of projected target spot with steel rule.	*c.* Vertical displacement does not exceed 3/32 inch.
			d. Measure any horizontal displacement of projected target spot with steel rule.	*d.* Horizontal displacement does not exceed 3/32 inch.
			e. Allow test film to run through projector; then turn OFF–MOTOR–LAMP switch to OFF and rewind film.	*e.* None.
			Framing	
4	None	Same as step No. 3	*a.* Rethread projector with test film, picture unsteadiness.	*a.* None.
			Caution: Be sure that rewind knob is *out.*	
			b. Turn OFF–MOTOR–LAMP switch to LAMP. Adjust focusing knob for sharply focused picture. Adjust FRAMER knob until picture appears centered in image area on screen.	*b.* None.
			c. Mark location of target spot on screen. Turn FRAMER knob fully clockwise. Measure displacement of target spot.	*c.* Target spot moves down at least 2 1/2 inches.
			d. Turn FRAMER knob fully counterclockwise. Measure displacement of target spot.	*d.* Target spot moves up at least 2 1/2 inches.
			e. Adjust FRAMER knob until target image is centered. Allow test film to run through projector; then turn OFF–MOTOR–LAMP switch to OFF and rewind film.	*e.* None.
			Shutter synchronization	
5	None	Same as step No. 3	*a.* Thread projector with test film, travel ghost.	*a.* None.
			Caution: Be sure that rewind knob is *out.*	
			b. Turn OFF–MOTOR–LAMP switch to LAMP. Adjust focusing knob for sharply focused picture.	*b.* None.
			c. Examine projected image for *tails* or light streaks in dark portions of picture.	*c.* There are no *tails* or light streaks in projected image.
			d. Allow test film to run through projector; then turn OFF–MOTOR–LAMP switch to OFF and rewind film.	*d.* None.
			Screen illumination	
6	None	Same as step No. 3	*a.* Turn OFF–MOTOR–LAMP switch to LAMP. Adjust focusing knob for sharply	*a.* None.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
			focused image of aperture, 40 inches wide. Move projector if necessary. *b.* Observe illuminated area and note any dark lines, spots, areas, color rings, or bends.	*b.* There are no dark lines, spots, areas, color rings, or bends.
7	*ME–86/U* Range selector switch: 120.	Same as step No. 3	*a.* Hold light target of ME–86/U against screen at center of illuminated area, and approximately at points indicated (*b*, fig. 73). Note and record indications on meter. *b.* Hold light target of ME–86/U against screen at each corner of illuminated area. Note and record meter indication at each corner. *Note.* Hold light target about 2 inches from corners of projected image. *c.* Turn OFF–MOTOR–LAMP switch to OFF	*a.* None. *b.* Average illumination at points and four corners is not less than 65% of illumination at center. *c.* None.

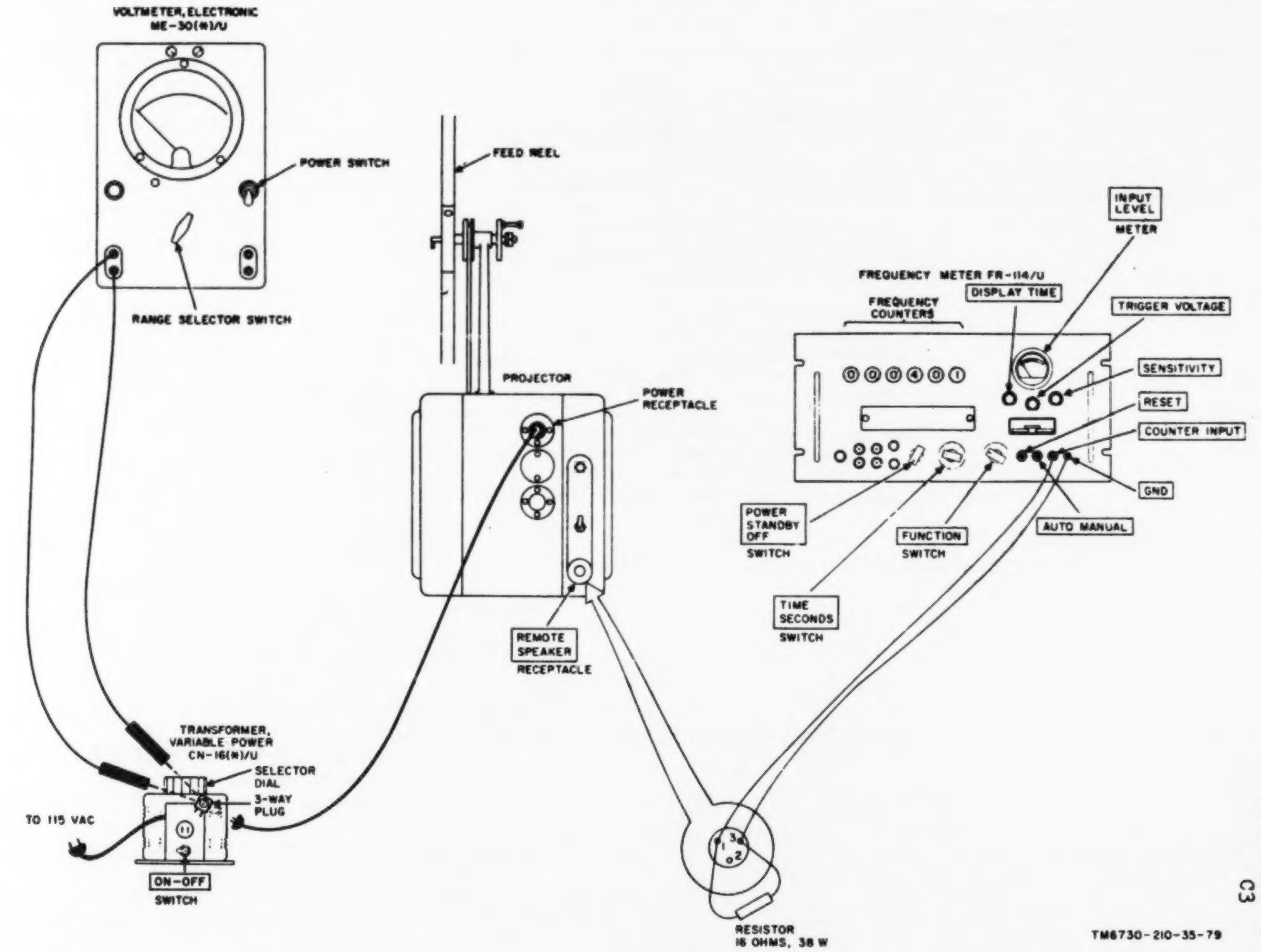


Figure 74. Electrical tests.

153. Electrical Tests

(fig. 74)

a. Test Equipment and Materials.

(1) Frequency Meter FR-114/U (p/o AN/TSM-16).
(2) Voltmeter, Electronic ME-30(*)/U.
(3) Transformer, Variable Power CN-16(*)/U.
(4) Screwdriver.
(5) Resistor, 16 ohm, 38 watt.
(6) Wire, No. 20 AWG or larger.

b. Test Connections and Conditions.

(1) Set the projector OFF-MOTOR-LAMP switch and the REWIND switch to OFF.
(2) Set the amplifier ON-OFF switch to OFF.
(3) Set the CN-16(*)/U ON-OFF switch to OFF.
(4) Turn off the ME-30(*)/U power switch.
(5) Thread the projector with test film, 400 cycle.
(6) Connect the equipment as shown in figure 74.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*CN-16(*)/U* On-OFF switch: OFF Selector dial: 0 *ME-30(*)/U* Range selector switch: 300 VOLTS Power switch: ON *FR-114/U* POWER-STANDBY-OFF: POWER FUNCTION: SCAN COUNT SENSITIVITY: fully counterclockwise TRIGGER VOLTAGE: clockwise to center of count range TIME-SECONDS: 1 DISPLAY TIME: fully counterclockwise AUTO MANUAL: MANUAL	*Projector* OFF-MOTOR-LAMP switch: OFF REWIND switch: OFF *Projector amplifier* TONE control: NOR VOLUME control: 5	*Projector speed* *a.* Set ON-OFF switch of CN-16(*)/U to ON. Adjust selector dial for indication of 115 volts ac on meter of ME-30(*)/U. *Caution:* Remove projection lamp from projector. *b.* Turn projector OFF-MOTOR-LAMP switch to LAMP. When sound track p [illegible]'s sound drum, adjust SENSITIVITY control of FR-114/U until pointer of INPUT LEVEL meter indicates in green part of scale. *c.* Rotate FUNCTION switch to FREQ COUNT on FR-114/U. Note and record frequency indicated on frequency counters. *d.* Reset counters and repeat procedure in *c* above to obtain three readings. Compute average frequency. *e.* Turn OFF-MOTOR-LAMP switch to OFF. Turn POWER-STANDBY-OFF switch of FR-114/U to OFF.	*a.* None. *b.* None. *c.* None. *d.* Average frequency is 400 cycles per second ±4. *e.* None.

2	ME-30(*)/U same as step No. 1. *CN-16(*)/U* ON-OFF switch: ON Selector dial: 0	Same as step No. 1	*Low voltage start* *a.* Adjust selector dial of CN-16(*)/U for indication of 105 volts on ME-30(*)/U meter. *b.* Turn OFF-MOTOR-LAMP switch to MOTOR and back to OFF three times. *c.* Allow test film to run through projector; then turn OFF-MOTOR-LAMP switch to OFF, replace projection lamp, and rewind film.	*a.* None. *b.* Projector starts and operates properly each time it is turned on. *c.* None.

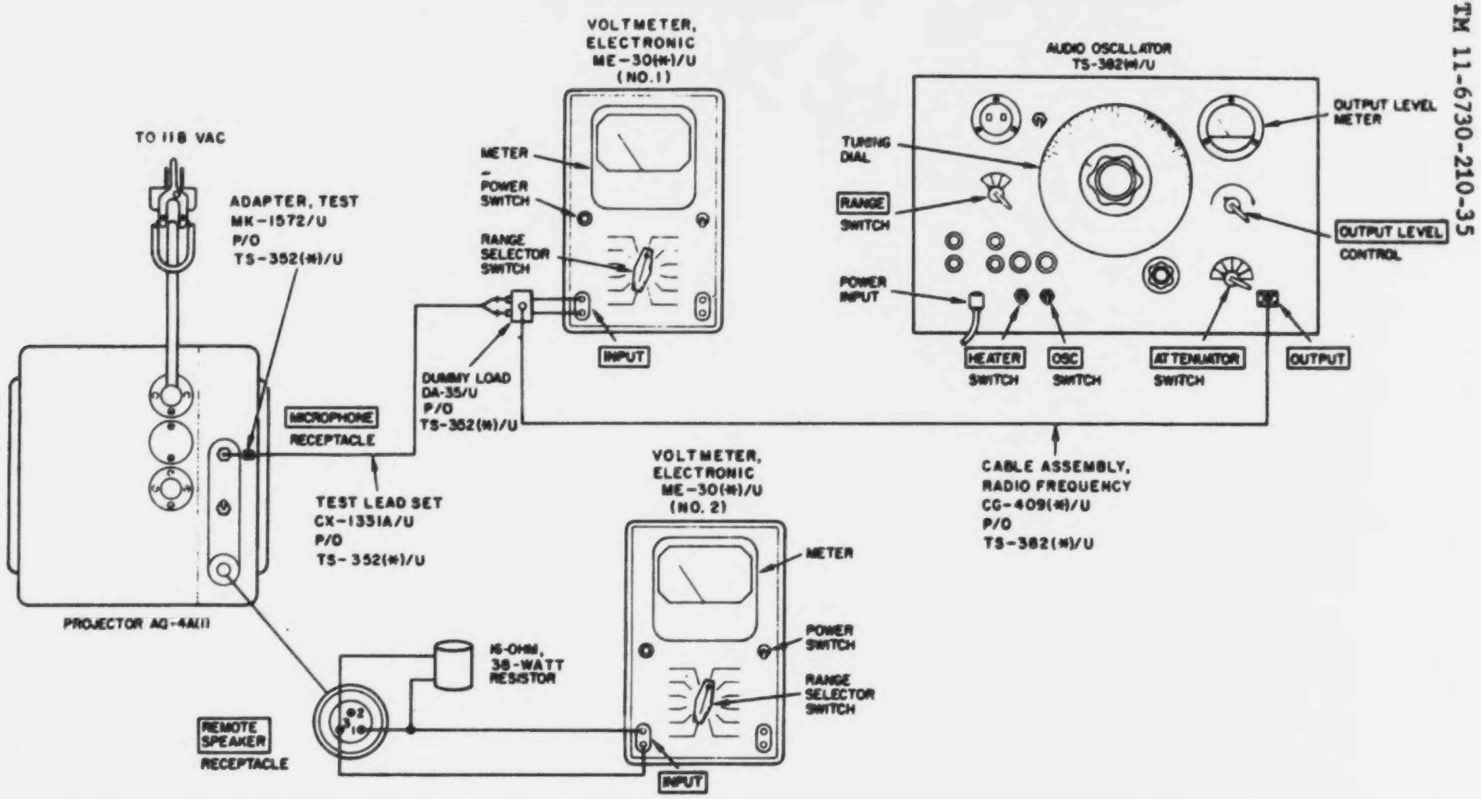

VOLTMETER, ELECTRONIC ME-30(*)/U (NO.1)
AUDIO OSCILLATOR TS-382(*)/U
TO 118 VAC
ADAPTER, TEST MK-1572/U P/O TS-352(*)/U
METER
POWER SWITCH
RANGE SELECTOR SWITCH
INPUT
TUNING DIAL
RANGE SWITCH
POWER INPUT
OUTPUT LEVEL METER
OUTPUT LEVEL CONTROL
HEATER SWITCH
OSC SWITCH
ATTENUATOR SWITCH
OUTPUT
MICROPHONE RECEPTACLE
DUMMY LOAD DA-35/U P/O TS-352(*)/U
TEST LEAD SET CX-1331A/U P/O TS-352(*)/U
CABLE ASSEMBLY, RADIO FREQUENCY CG-409(*)/U P/O TS-382(*)/U
VOLTMETER, ELECTRONIC ME-30(*)/U (NO. 2)
METER
POWER SWITCH
RANGE SELECTOR SWITCH
PROJECTOR AQ-4A(1)
16-OHM, 38-WATT RESISTOR
REMOTE SPEAKER RECEPTACLE
INPUT
TM6730-210-35-82

Figure 76. Projector frequency response test connections.

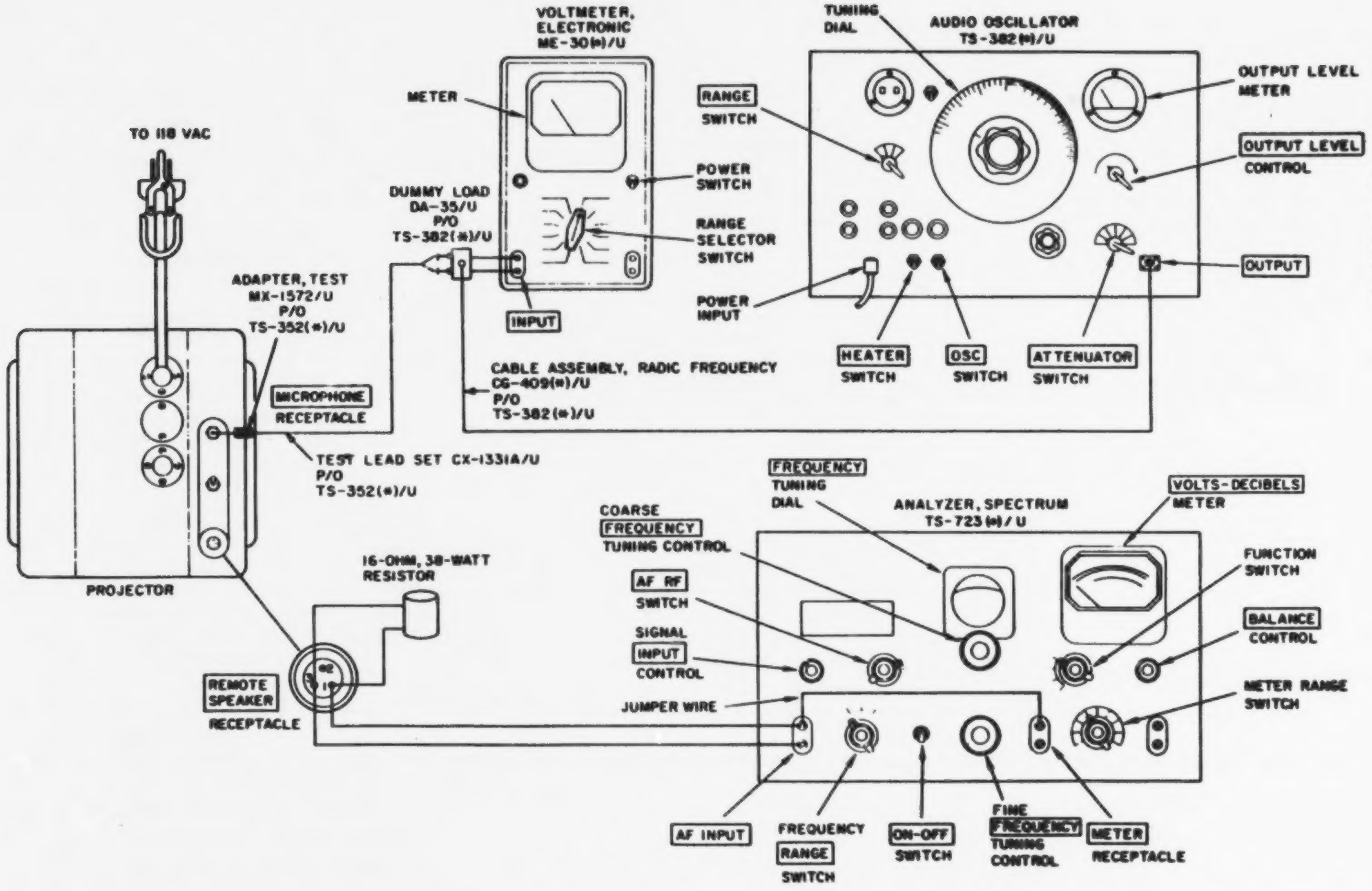
154. Projector Frequency Response Test (fig. 76)

a. Test Equipment and Materials.
- (1) Voltmeter, Electronic ME-30(*)/U (2 required).
- (2) Audio Oscillator TS-382(*)/U.
- (3) Dummy Load DA-35/U.
- (4) Resistor, 16 ohm, 38 watts.

b. Test Connections and Conditions.
- (1) Connect the equipment as shown in figure 76.
- (2) Operate the TS-382(*)/U HEATER and OSC switches to ON; allow 10 minutes for the equipment to warm up.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U (No. 1)* Power switch: ON Range selector switch: 1 VOLTS *ME-30(*)/U (No. 2)* Power switch: ON Range selector switch: 10 VOLTS *TS-382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR: X1	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON TONE control: NOR	a. Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.2 volt on meter ME-30(*)/U No. 1. b. Adjust projector amplifier VOLUME control to obtain a reading of 7.7 volts (0 db) on meter of ME-30(*)/U No. 2.	a. None. b. None.
2	*TS-382(*)/U* RANGE switch: X1 Tuning dial: 70		Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.2 volt on meter of ME-30(*)/U No. 1.	DECIBELS scale of ME-30(*)/U No. 2 reads zero to -4 db.
3	*TS-382(*)/U* RANGE switch: X1 Tuning dial: 100		Same as step 2 above	DECIBELS scale of ME-30(*)/U No. 2 reads 0 db (±1 1/2 db).
4	*TS-382(*)/U* RANGE switch: X10 Tuning dial: 100		Same as test procedure step 2 above	DECIBELS scale of ME-30(*)/U No. 2 reads 0 db (±1 1/2 db).
5	*TS-382(*)/U* RANGE switch: X100 Tuning dial: 70		Same as test procedure step 2 above	DECIBELS scale of ME-30(*)/U No. 2 reads 0 db (±1 1/2 db).



TM6730-210-35-83

Figure 77. Power output and distortion test connections.

155. Power Output and Distortion Test (fig. 77)

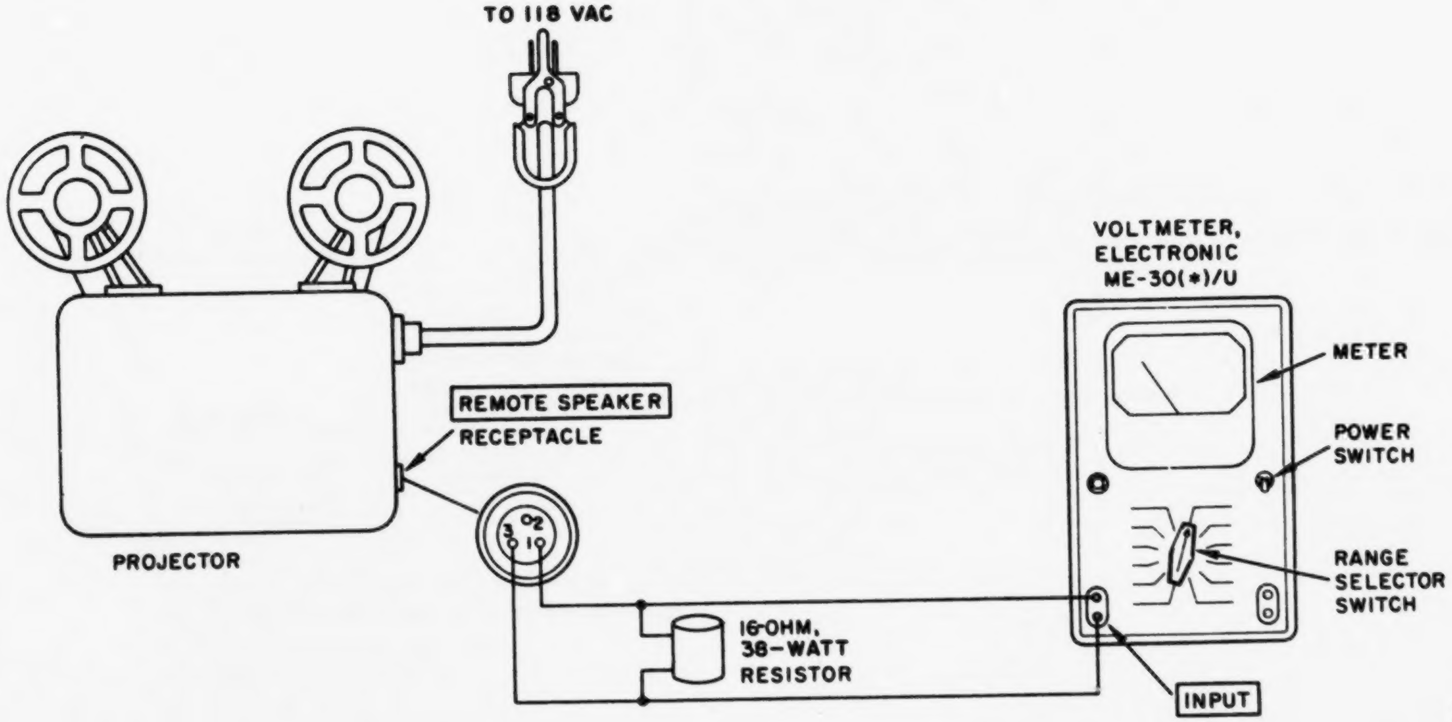
a. Test Equipment and Materials.
- (1) Voltmeter, Electronic ME-30(*)/U.
- (2) Audio Oscillator TS-382(*)/U.
- (3) Analyzer, Spectrum TS-723(*)/U.
- (4) Dummy Load DA-35/U.
- (5) Resistor, 16 ohm, 38 watt.

b. Test Connections and Conditions.
- (1) Connect the equipment as shown in figure 77.
- (2) Operate the TS-382(*)/U HEATER and OSC switches to ON.
- (3) Operate the TS-723(*)/U ON-OFF switch to ON.
- (4) Allow 10 minutes for the test equipment to warm up.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U* Power switch: ON Range selector switch: .3 VOLTS *TS-382(*)/U* RANGE switch: X1 Tuning dial: 100 ATTENUATOR: X1 *TS-723(*)/U* Function switch: METER Meter range switch: 30 VOLTS AF-RF switch: AF Frequency RANGE switch: X1	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON TONE control: NOR	*a.* Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.18 volts on meter of ME-30(*)/U. *b.* Adjust coarse FREQUENCY tuning control of TS-723(*)/U to obtain reading of 100 on FREQUENCY tuning dial. *c.* Adjust projector amplifier VOLUME control to obtain reading of 11 volts on VOLTS-DECIBELS meter of TS-723(*)/U. *d.* Move TS-723(*)/U function switch to SET LEVEL and meter range switch to 100%; then adjust signal INPUT control to obtain a reading of 1.0 on upper scale of VOLTS-DECIBELS meter. *e.* Move TS-723(*)/U function switch to DISTORTION and meter range switch to 10%; then adjust fine FREQUENCY tuning control and BALANCE control alternately to obtain minimum reading on upper scale of VOLTS-DECIBELS meter.	*a.* None. *b.* None. *c.* None. *d.* None. *e.* VOLTS-DECIBELS meter indicates 0.2 or less.
2	*TS-382(*)/U* RANGE switch: X10 *TS-723(*)/U* Frequency RANGE switch: X10	----------	Repeat test procedures step 1*a* through *e* above	Indication on spectrum analyzer VOLTS-DECIBELS meter is 0.2 or less.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
3	*TS-382(*)/U* RANGE switch: X100 Tuning dial: 30 *TS-723(*)/U* Frequency RANGE switch: X100	------------------------	*a.* Repeat test procedure *a*, step 1 above ...... *b.* Adjust coarse FREQUENCY tuning control of TS-723(*)/U to obtain reading of 30 on FREQUENCY tuning dial. Repeat test procedures step 1*c* through *e* above.	*a.* None. *b.* Indication on TS-723(*)/U VOLTS-DECIBELS meter is 0.2 or less.
4	*TS-382(*)/U* Tuning dial: 70	------------------------	*a.* Repeat test procedure step 1*a* above ...... *b.* Adjust coarse FREQUENCY tuning control of TS-723(*)/U to obtain reading of 70 on FREQUENCY tuning dial. Repeat test procedures step 1*c* through *e* above.	*a.* None. *b.* Indication on VOLTS-DECIBLES meter is 0.2 or less.



TM6730-210-35-85

Figure 79. Scanning beam positioning test connections.

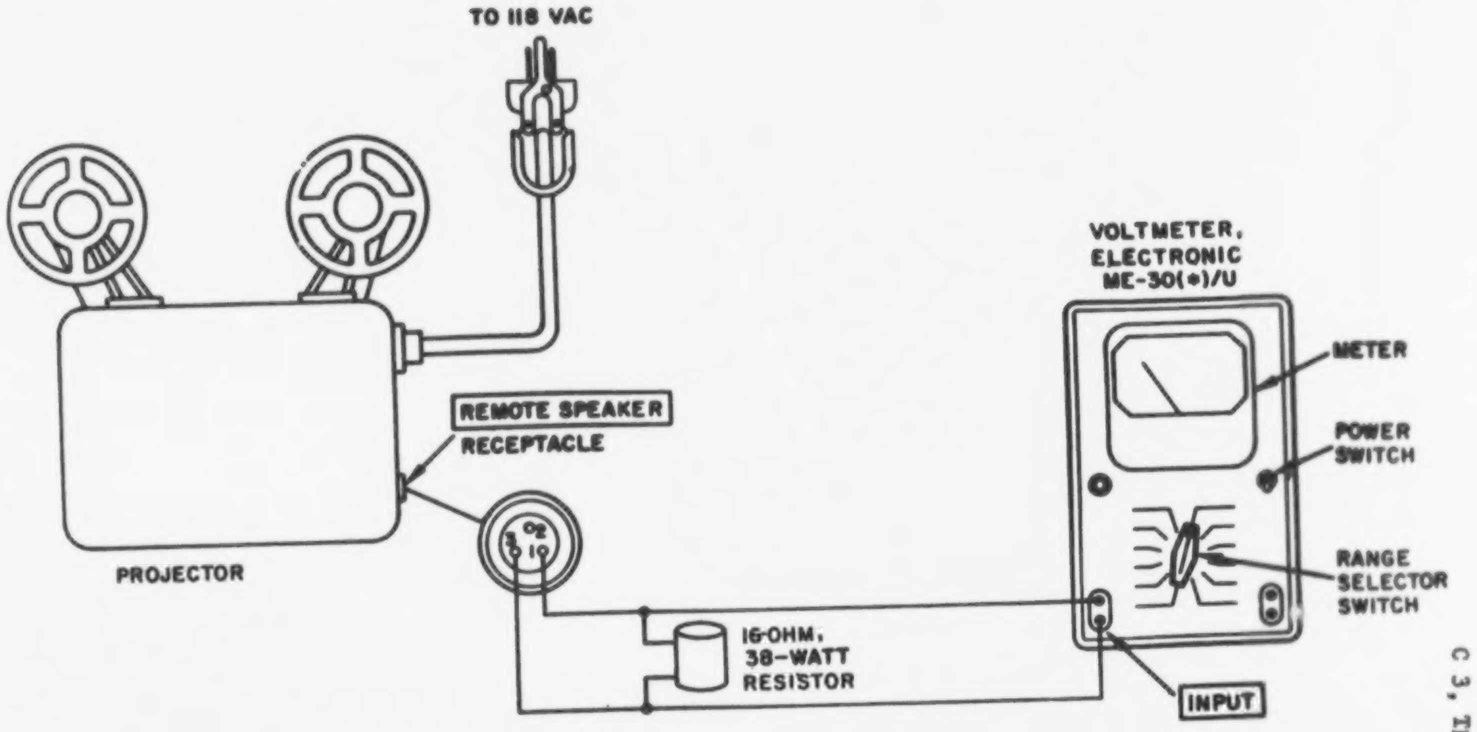
156. Scanning Beam Positioning Test
(fig. 79)

a. Test Equipment and Materials.
  (1) Voltmeter, Electronic ME-30(*)/U.
  (2) Resistor 16 ohm, 38 watt.
  (3) Test film, 400 cycle.
  (4) Test film, buzz track.

b. Test Connections and Conditions.
  (1) Connect the equipment as shown in figure 79.
  (2) Thread the projector with test film, 400 cycle.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U* Power switch: ON Range selector switch: 10 VOLTS	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON Speaker selector switch: REMOTE SPEAKER ON TONE control: NOR	a. Operate OFF-MOTOR-LAMP switch to LAMP, and press in OPTICAL button on soundhead. b. Adjust VOLUME control to obtain reading of 8.95 volts on ME-30(*)/U.	a. None. b. None.
2	Range selector switch: .1 VOLTS	....	Thread projector with buzz-track test film and repeat test procedure 1a above.	ME-30(*)/U registers 0.09 or less.



TM6730-210-35-86

Figure 80. Scanning beam focus test connections.

157. Scanning Beam Focus Test
(fig. 80)

a. Test Equipment and Materials.

(1) Voltmeter, Electronic ME–30(*)/U.

(2) Resistor, 16 ohm, 38 watt.

(3) Test film, focusing, 7,000 cycle.

b. Test Connections and Conditions.

(1) Connect the equipment as shown in figure 80.

(2) Splice two strips of test film into loop, one strip with emulsion on the outside and the other with emulsion on the inside of the loop; thread the loop of film on the projector.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME–30(*)/U* Power switch: ON Range selector switch: 3 VOLTS	*Projector* OFF–MOTOR–LAMP switch: OFF *Projector amplifier* ON–OFF switch: ON TONE control: NOR	*a.* Operate OFF–MOTOR–LAMP switch to LAMP, and set OPTICAL MAGNETIC RECORD switch to OPTICAL. *b.* Adjust amplifier VOLUME control unit ME–30(*)/U meter indicates approximate midpoint of DECIBELS scale.	*a.* None. *b.* Total inclusive swing of ME–30(*)/U needle does not exceed 2 db. *Note.* Disregard momentary needle jump caused by film splices.

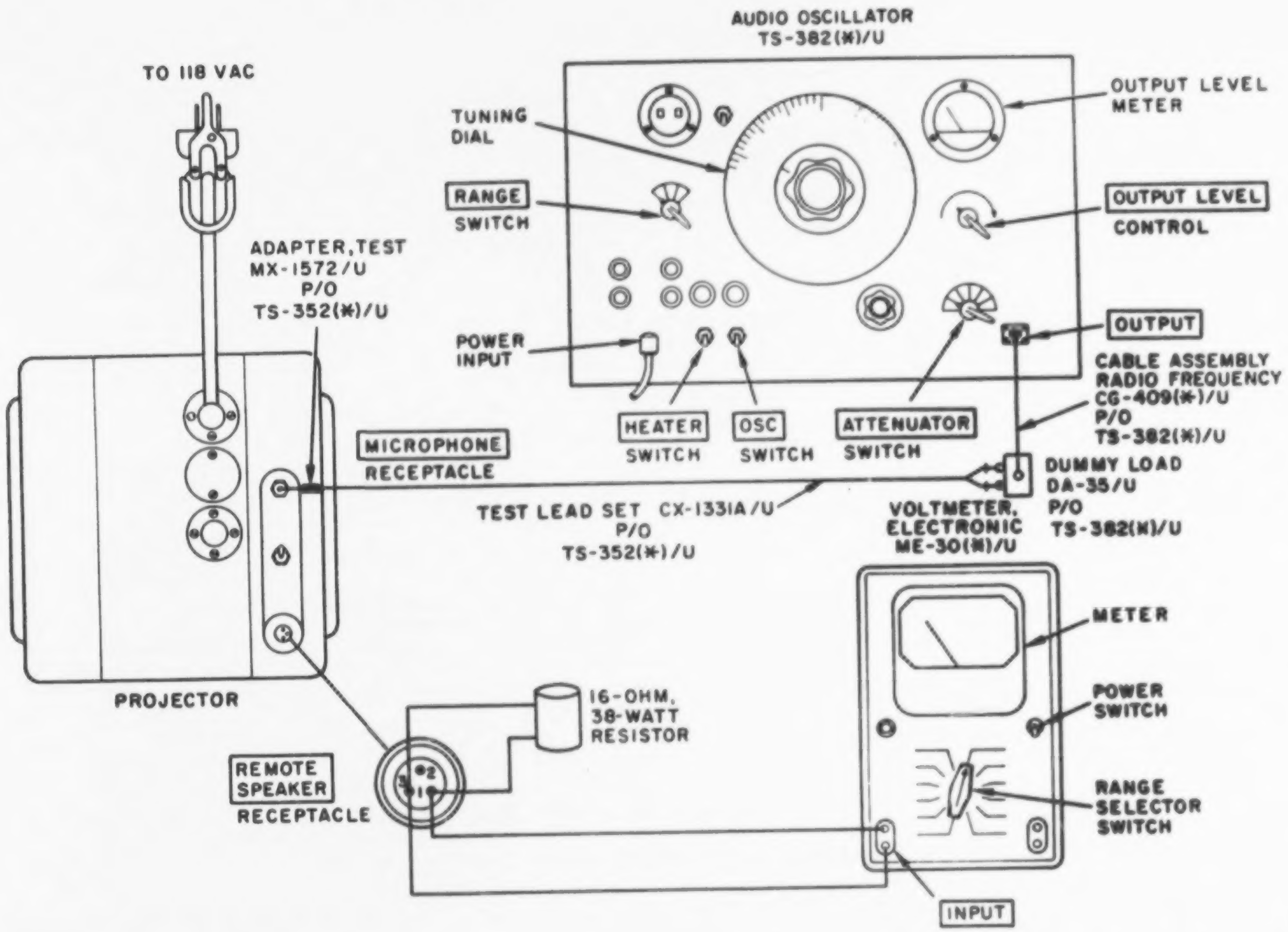


Figure 88. Tone control test connections.

158. Tone Control Test
(fig. 82)

a. Test Equipment and Materials.
(1) Voltmeter, Electronic ME-30(*)/U.
(2) Audio Oscillator TS-382(*)/U.
(3) Dummy Load DA-35/U.
(4) Resistor, 16 ohm, 38 watt.

b. Test Connections and Conditions. Connect the equipment as shown in figure 82.

c. Initial Test Equipment Calibration.
(1) Operate the TS-382(*)/U HEATER and OSC switches to ON.
(2) Allow 10 minutes for the test equipment to warm up.

d. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U* Power switch: ON Range selector switch: +20 DB *TS-382(*)/U* RANGE switch: X10 Tuning dial: 70 ATTENUATOR: X.1	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON TONE control: NOR VOLUME control: 5	Adjust TS-382(*)/U OUTPUT LEVEL control to obtain a reading of −3 db on ME-30(*)/U meter. Note reading on the TS-382(*)/U output level meter. *Note.* Output level meter reading will be referenced in following tests.	None.
2	*TS-382(*)/U* RANGE switch: X1 Tuning dial: 100	*Projector amplifier* TONE control: LO	*a.* Adjust TS-382(*)/U OUTPUT LEVEL control to obtain same output level meter reading as in step 1 test procedure. *b.* Operate projector amplifier TONE control to HI and ME-30(*)/U range selector switch to +10 db.	*a.* ME-30(*)/U meter indicates −1 to −5 db. *b.* ME-30(*)/U meter indicates −5 db min.
3	*TS-382(*)/U* RANGE switch: X100 Tuning dial: 35 *ME-30(*)/U* Range selector switch: +30 db		Adjust TS-382(*)/U OUTPUT LEVEL control to obtain same output level meter reading as in step 1 test procedure.	ME-30(*)/U indicates −5 to −9 db.
4	*TS-382(*)/U* Tuning dial: 50		*a.* Adjust TS-382(*)/U OUTPUT LEVEL control to obtain same output level meter reading as in step 1 test procedure. *b.* Operate projector amplifier TONE control to LO and ME-30(*)/U range selector switch to +10 db.	*a.* ME-30(*)/U indicates −6 to −10 db. *b.* ME-30(*)/U −3 db min.

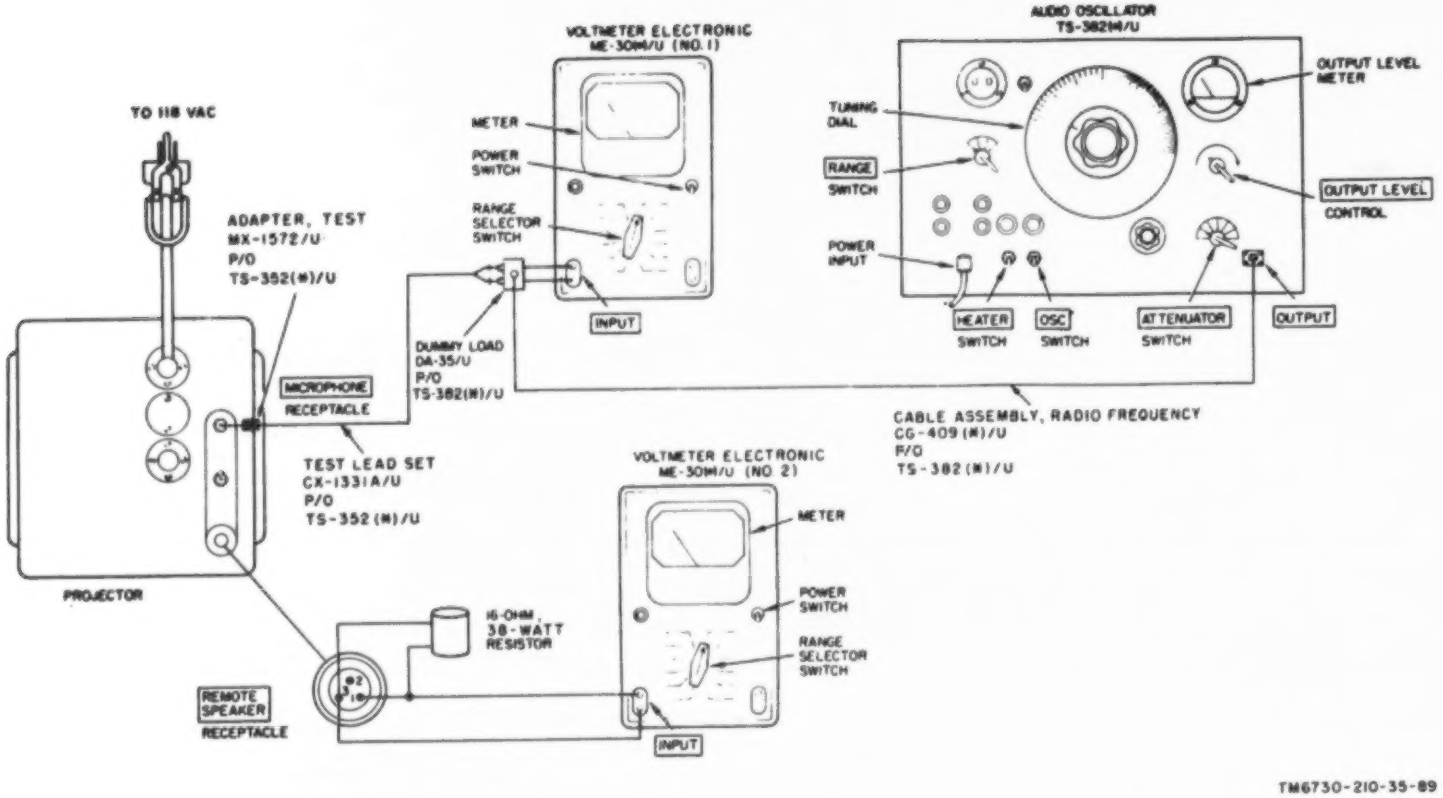


Figure 83. Reserve amplification test connections.

159. Reserve Amplification Test
(fig. 83)

a. Test Equipment and Materials.
(1) Voltmeter, Electronic ME-30(*)/U (2 reqd).
(2) Audio Oscillator TS-382(*)/U.
(3) Dummy Load DA-35/U.
(4) Resistor, 16 ohm, 38 watt.

b. Test Connections and Conditions. Connect the equipment as shown in figure 83.

c. Initial Test Equipment Calibration.
(1) Operate the TS-382(*)/U HEATER and OSC switches to ON.
(2) Allow 10 minutes for the equipment to warm up.

d. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U (No. 1)* Power switch: ON Range selector switch: .03 VOLTS *ME-30(*)/U (No. 2)* Power switch: ON Range selector switch: 30 VOLTS *TS-382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR: X1	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON TONE control: NOR VOLUME control: 1	*a.* Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.018 volt on center scale of ME-30(*)/U No. 1. *b.* Rotate amplifier VOLUME control clockwise while noting reading on center scale of ME-30(*)/U No. 2.	*a.* None. *b.* A reading as high as 11 volts is obtained.

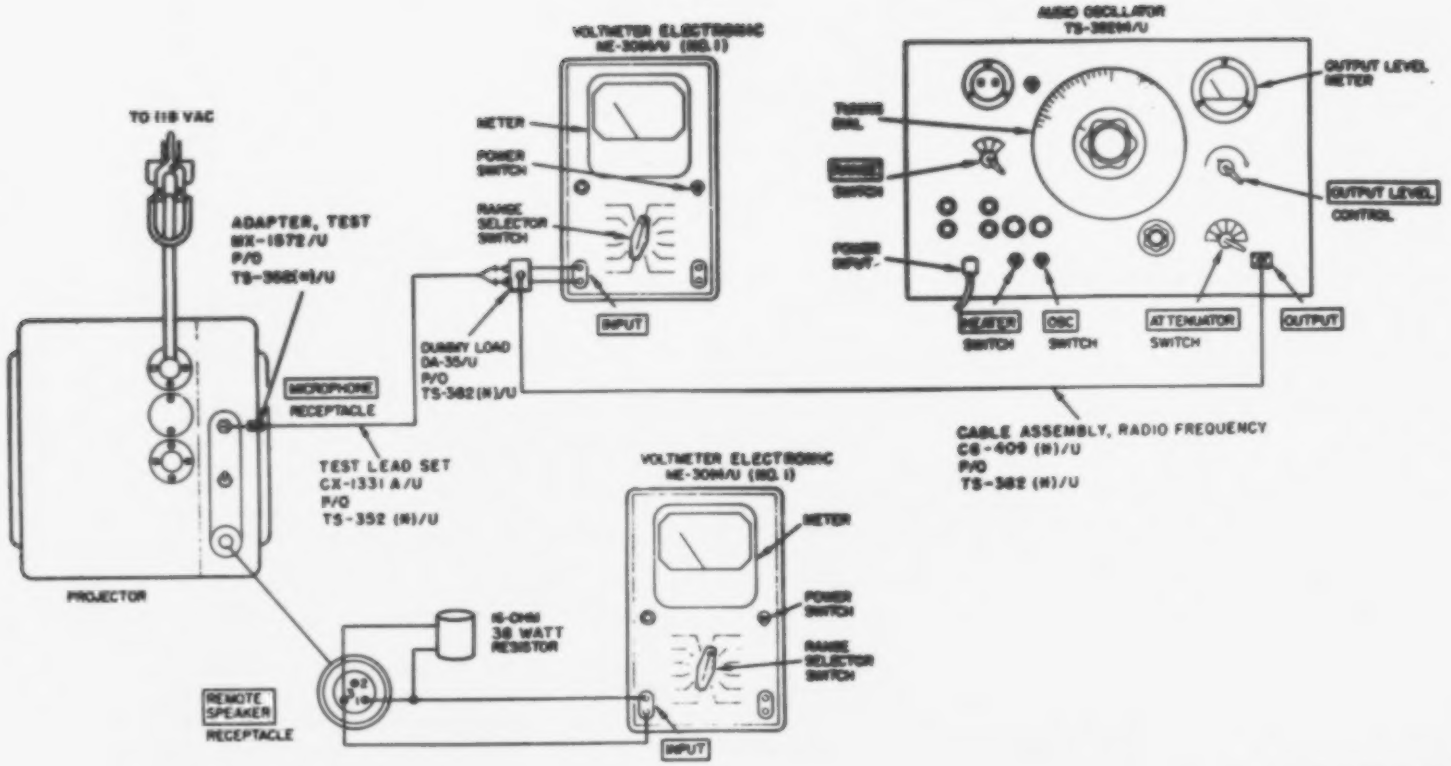


Figure 84. Overall noise test connections.

160. Overall Noise Test
(fig. 84)

a. Test Equipment and Materials.
- (1) Voltmeter, Electronic ME-30(*)/U (2 reqd).
- (2) Audio Oscillator TS-382(*)/U.
- (3) Dummy Load DA-35/U.
- (4) Resistor, 16 ohm, 38 watt.

b. Test Connections and Conditions. Connect the equipment as shown in figure 84.

c. Initial Test Equipment Calibration.
- (1) Operate the TS-382(*)/U HEATER and OSC switches to ON.
- (2) Allow 10 minutes for the test equipment to warm up.

d. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U (No. 1)* Power switch: ON Range selector switch: .03 VOLTS *ME-30(*)/U (No. 2)* Power switch: ON Range selector switch: 30 VOLTS *TS-382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR: X.1	*Projector* OFF-MOTOR-LAMP switch: OFF *Projector amplifier* ON-OFF switch: ON TONE control: NOR VOLUME control: 1	*a.* Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.018 volt on center scale of ME-30(*)/U No. 1.	*a.* None.
			b. Operate OFF-MOTOR-LAMP switch to LAMP and adjust VOLUME control to obtain reading of 11 volts on center scale of ME-30(*)/U No. 2.	*b.* None.
			c. Disconnect test lead from MICROPHONE receptacle and set range selector switch of ME-30(*)/U No. 2 at .3 VOLTS.	*c.* Reading on center scale of ME-30(*)/U No. 2 is 0.11 volts or less.

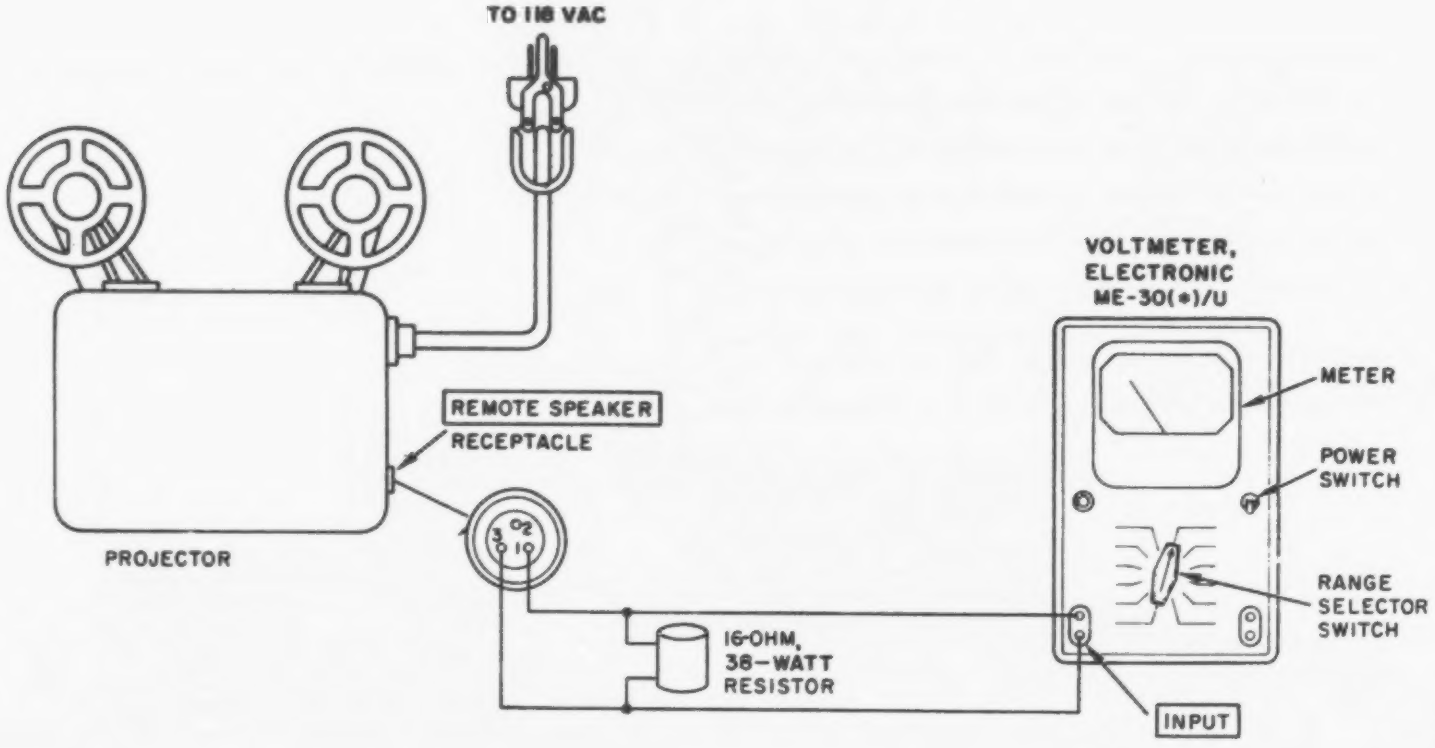


Figure 85. Magnetic frequency response test connections.

161. Magnetic Frequency Response Test
(fig. 85)

a. Test Equipment and Materials.

(1) Voltmeter, Electronic ME-30(*)/U.
(2) Resistor, 16 ohm, 38 watt.
(3) Test film, multifrequency, magnetic.

b. Test Connections and Conditions.

c. Procedure.

(1) Connect the equipment as shown in figure 85.
(2) Thread the projector with test film, multifrequency, magnetic.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U* Power switch: ON Range selector switch: 10 VOLTS	*Projector* OFF-MOTOR-LAMP switch: OFF OPTICAL MAGNETIC RECORD switch: MAGNETIC *Projector amplifier* ON-OFF switch: ON TONE control: NOR	*a.* Operate OFF-MOTOR-LAMP switch to LAMP. While 400-cycle reference signal is being produced, adjust amplifier VOLUME control to obtain a reading of 0 db on ME-30(*)/U DECIBELS scale. *Note.* To hear announcement of each test signal, operate the speaker selector switch to LOCAL SPEAKER ON. To obtain meter readings, operate switch to REMOTE SPEAKER ON position.	*a.* None.
			b. Note reading on ME-30(*)/U during 50-cycle tone.	*b.* Maximum variation from zero is +3 db to −4 db.
			c. Note reading on ME-30(*)/U during 100-, 200-, 300-, 500-, 1,000-, and 2,000-cycle tones.	*c.* Maximum variation from zero is +2 to −2 db.
			d. Note reading on ME-30(*)/U during 3,000-cycle tone.	*d.* Maximum variation from zero is +2 to −2½ db.
			e. Note reading on ME-30(*)/U during 4,000-cycle tone.	*e.* Maximum variation from zero is +2 to −4 db.
			f. Note reading on ME-30(*)/U during 5,000-cycle tone.	*f.* Maximum variation from zero is +2 to −6 db.
			g. Note reading on ME-30(*)/U during 6,000-cycle tone.	*g.* Maximum variation from zero is +2 to −8 db.
			h. Note reading on ME-30(*)/U during 7,000-cycle tone.	*h.* Maximum variation from zero is +1½ to −10 db.

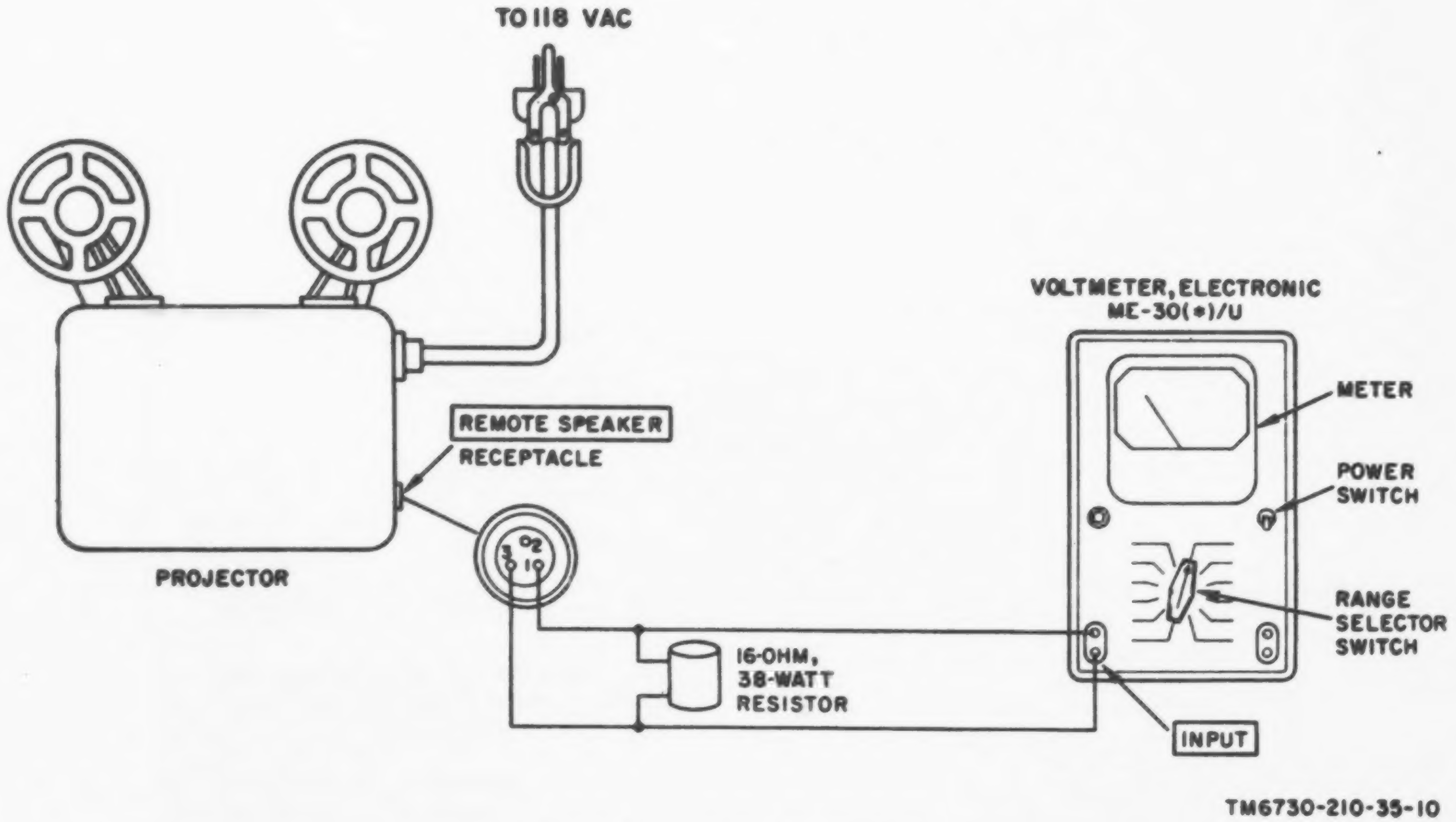


Figure 86. Dynamic range test connections.

162. Dynamic Range Test (fig. 86)

a. ***Test Equipment** and Materials.*

(1) **Voltmeter,** Electronic ME-30(*)/U.
(2) **Resistor,** 16 ohm, 38 watt.
(3) Test film, 400 cycle, magnetic.
(4) Test leads, 2 each.

b. *Test Connections and Conditions.*

(1) Connect the equipment as shown in figure 86.
(2) Thread the projector with test film.

c. *Procedure.*

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U* Power switch: ON Range selector switch: 30 VOLTS	*Projector* OFF-MOTOR-LAMP switch: OFF OPTICAL MAGNETIC RECORD switch: MAGNETIC *Projector amplifier* ON-OFF switch: ON TONE control: NOR Speaker selector switch: REMOTE	*a.* Operate OFF-MOTOR-LAMP switch to LAMP and adjust VOLUME control to obtain reading of 11 volts on center scale of ME-30(*)/U. *b.* Operate OFF-MOTOR-LAMP switch to OFF and remove test film. *c.* Operate range selector switch to 0.3 VOLTS and OFF-MOTOR-LAMP to LAMP. Note reading on center scale of ME-30(*)/U.	*a.* None. *b.* None. *c.* ME-30(*)/U center scale reads 0.11 volts or less.

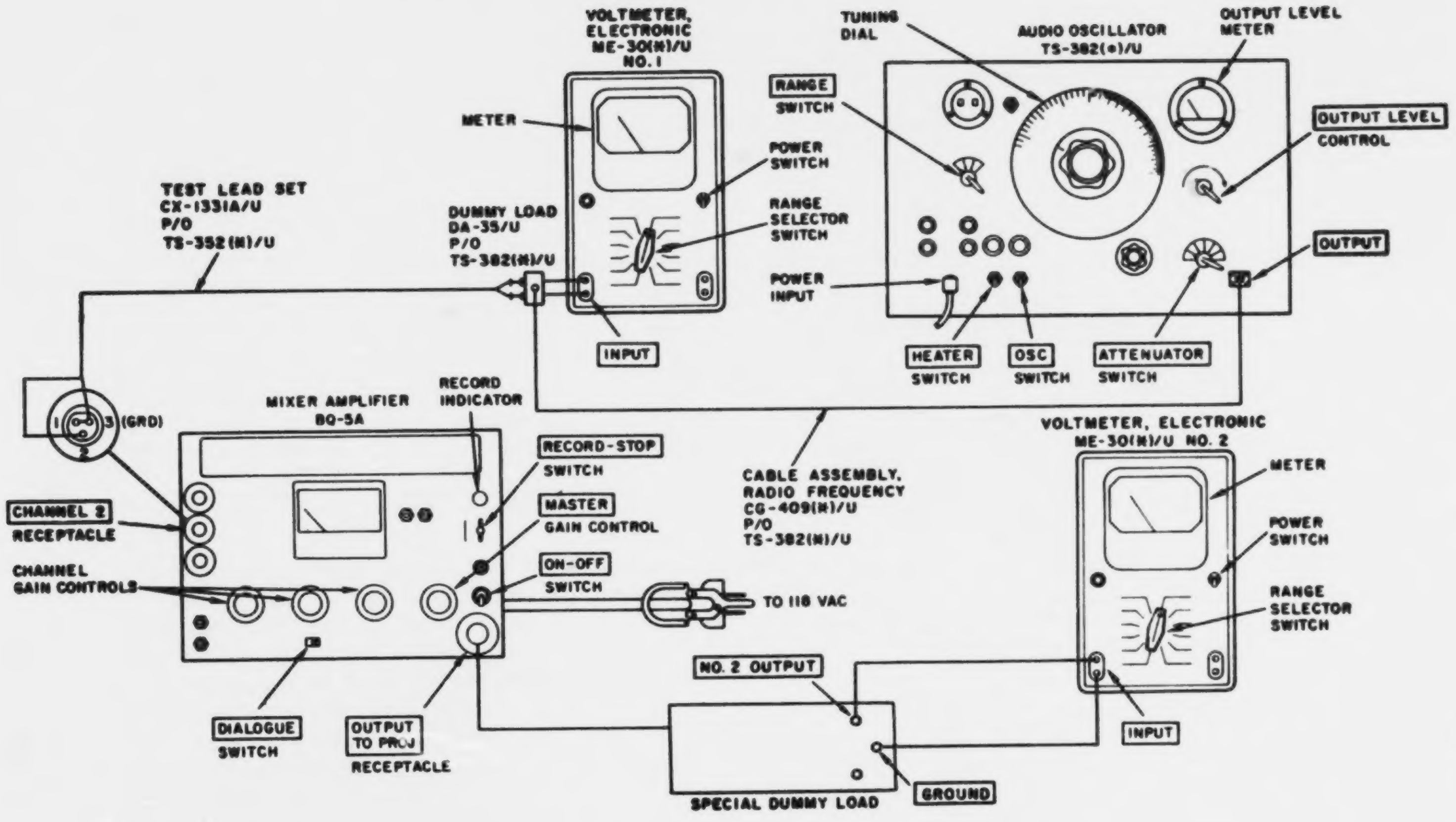


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Figure 87. Dialogue equalizer test connections.

163. Dialogue Equalizer Test
(fig. 87)

a. *Test Equipment and Materials.*
(1) Voltmeter, Electronic ME-30(*)/U (2 each).
(2) Audio Oscillator TS-382(*)/U.
(3) Dummy Load DA-35/U.
(4) Special dummy load (fig. 16).
(5) Test leads, 4 each.

b. *Test Connections and Conditions.*
(1) Connect the equipment as shown in figure 87.
(2) Remove RF oscillator tube V306.

c. *Initial Test Equipment Calibration.*
(1) Operate the TS-382(*)/U HEATER and OSC switches to ON.
(2) Allow 10 minutes for the test equipment to warm up.

d. *Procedure.*

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U (No. 1)* Power switch: ON Range selector switch: .001 VOLTS *ME-30(*)/U (No. 2)* Power switch: ON Range selector switch: .003 VOLTS *TS-382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR switch: X1000 MICROVOLTS	*Mixer-amplifier* ON-OFF switch: ON DIALOGUE switch: OUT CHANNEL 1 and CHANNEL 3 gain controls: fully counterclockwise MASTER gain control: fully clockwise	a. Adjust OUTPUT LEVEL control of TS-382(*)/U to obtain reading of 0.0003 on upper scale of ME-30(*)/U No. 1. b. Operate RECORD-STOP switch to RECORD and release. c. Adjust CHANNEL 2 gain control to obtain reading of 0 db on DECIBELS scale of ME-30(*)/U No. 2. d. Operate DIALOGUE switch to IN	a. None. b. Record indicator is illuminated. c. None. d. Reading on ME-30(*)/U No. 2 is between −2 and −5 db.
2	*ME-30(*)/U (No. 2)* Range selector switch: .001 VOLTS *TS-382(*)/U* RANGE switch: X1 Tuning dial: 50		a. Same as test procedure step 1*a* above b. Operate range selector switch of ME-30(*)/U No. 2 to .01 VOLT and DIALOGUE switch to OUT.	a. Reading on ME-30(*)/U No. 2 is between −2 and −4 db. b. Reading on ME-30(*)/U No. 2 is between −3 and −6 db.
3	*ME-30(*)/U (No. 2)* Range selector switch: 0.03 VOLT		a. Same as test procedure step 1*a* above b. Operate DIALOGUE switch to IN	a. Reading on ME-30(*)/U No. 2 is between −2 db and −7 db. b. Reading on ME-30(*)/U No. 2 is between −2 db and −7 db.

TS-382(*)/U
RANGE switch: X100
Tuning dial: 70

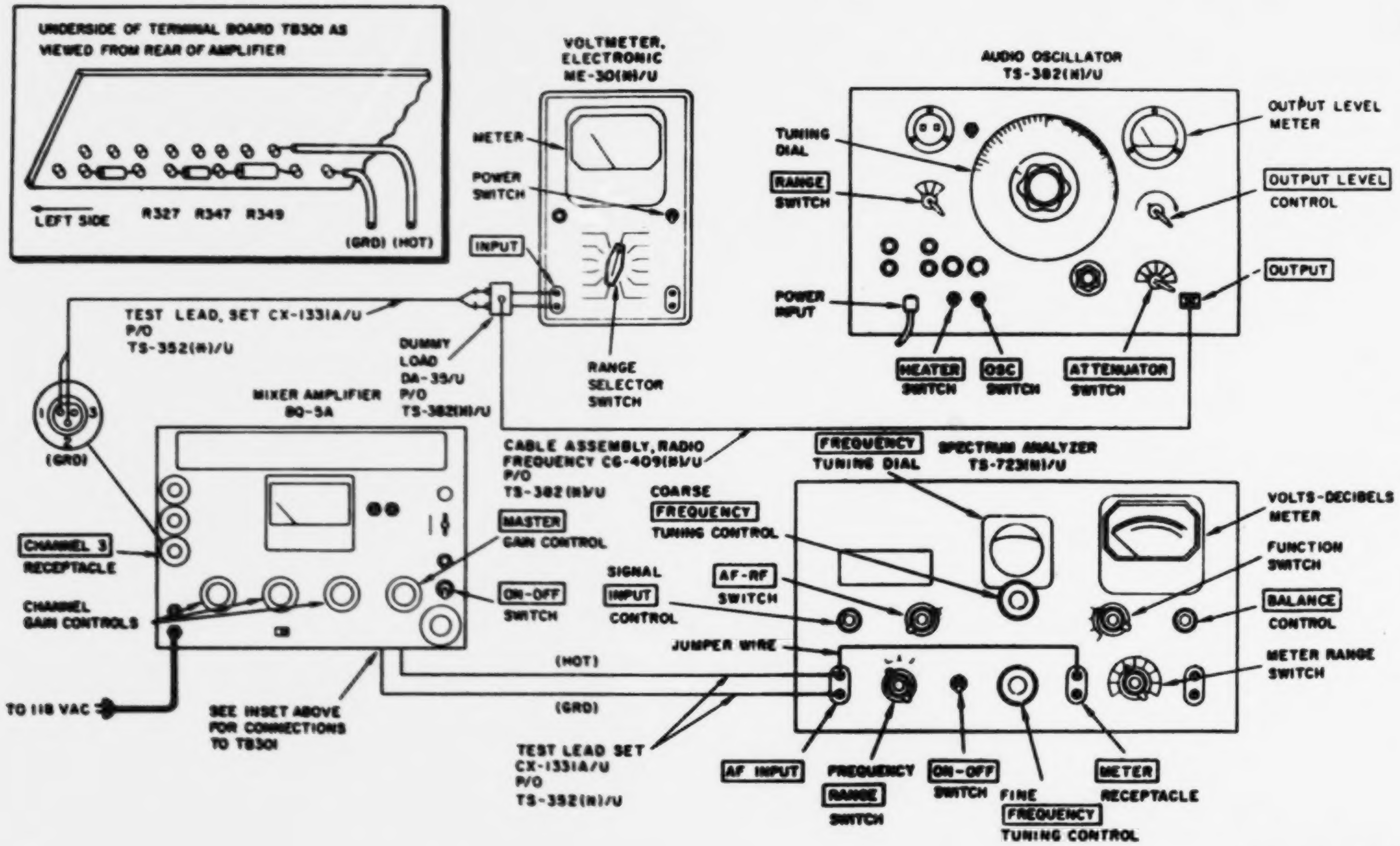

Figure 88. Distortion and linearity test connections.

164. Distortion and Linearity Test
(fig. 88)

a. Test Equipment and Materials.

(1) Voltmeter, Electronic ME–30(*)/U.
(2) Audio Oscillator TS–382(*)/U.
(3) Analyzer, Spectrum TS–723(*)/U.
(4) Dummy Load DA–35/U.
(5) Test leads, 4 each.

b. Test Connections and Conditions.

(1) Remove rear protective screen from mixer-amplifier chassis.
(2) Connect the equipment as shown in figure 88.

c. Initial Test Equipment Calibration.

(1) Operate the TS–382(*)/U HEATER and OSC switches to ON.
(2) Operate the TS–723(*)/U ON–OFF switch to ON.
(3) Allow 10 minutes for the test equipment to warm up.

d. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME–30(*)/U* Power switch: ON Range selector switch: 1 VOLTS *TS–382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR: X1 *TS–723(*)/U* AF–RF switch: AF Frequency RANGE switch: X10 FREQUENCY tuning dial: 40 Function switch: METER Meter range switch: 1.0 VOLTS	*Mixer-amplifier* ON–OFF: ON CHANNEL 1 and 2 gain controls: turned fully counterclockwise.	*Distortion Test:* *a.* Adjust TS–382(*)/U OUTPUT LEVEL control to obtain reading of 0.5 on upper scale of ME–30(*)/U. *b.* Adjust CHANNEL 3 and MASTER gain controls to obtain a reading of 0.8 on upper volts scale of TS–723(*)/U VOLTS–DECIBELS meter. *c.* Operate TS–723(*)/U meter range switch to 3.0 VOLTS, function switch to SET LEVEL, and adjust signal INPUT control to obtain reading of 1.0 on upper volts scale of VOLTS–DECIBELS meter. *d.* Operate TS–723(*)/U function switch to DISTORTION and meter range switch to .10 VOLTS; alternately adjust fine FREQUENCY tuning control and BALANCE control to obtain lowest possible reading on center scale of VOLTS–DECIBELS meter. *e.* Turn TS–382(*)/U OUTPUT LEVEL control fully counterclockwise.	*a.* None. *b.* None. *c.* None. *d.* Reading on center scale of VOLTS–DECIBELS meter is 1.5 or less. *e.* None.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
2	*ME–30(*)/U* Range selector switch: .3 VOLTS *TS–723(*)/U* Meter range switch: 3.0 VOLTS Function switch: SET LEVEL		*Linearity Check:*	
			a. Adjust TS–723(*)/U signal INPUT control to obtain reading of 0 db on VOLTS–DECIBELS meter.	*a.* None.
			b. Same as test procedure step 1*a* above	*b.* TS–723(*)/U VOLTS–DECIBELS meter reads −9½ to −10½ db.
			c. Operate ME–30(*)/U range selector switch to 3 VOLTS.	*c.* None.
			d. Operate TS–382(*)/U ATTENUATOR switch to X10.	*d.* None.
			e. Operate TS–723(*)/U meter range switch to 10 VOLTS.	*e.* None.
			f. Same as test procedure step 1*a* above	*f.* TS–723(*)/U VOLTS–DECIBELS meter reads −½ to +½ db.

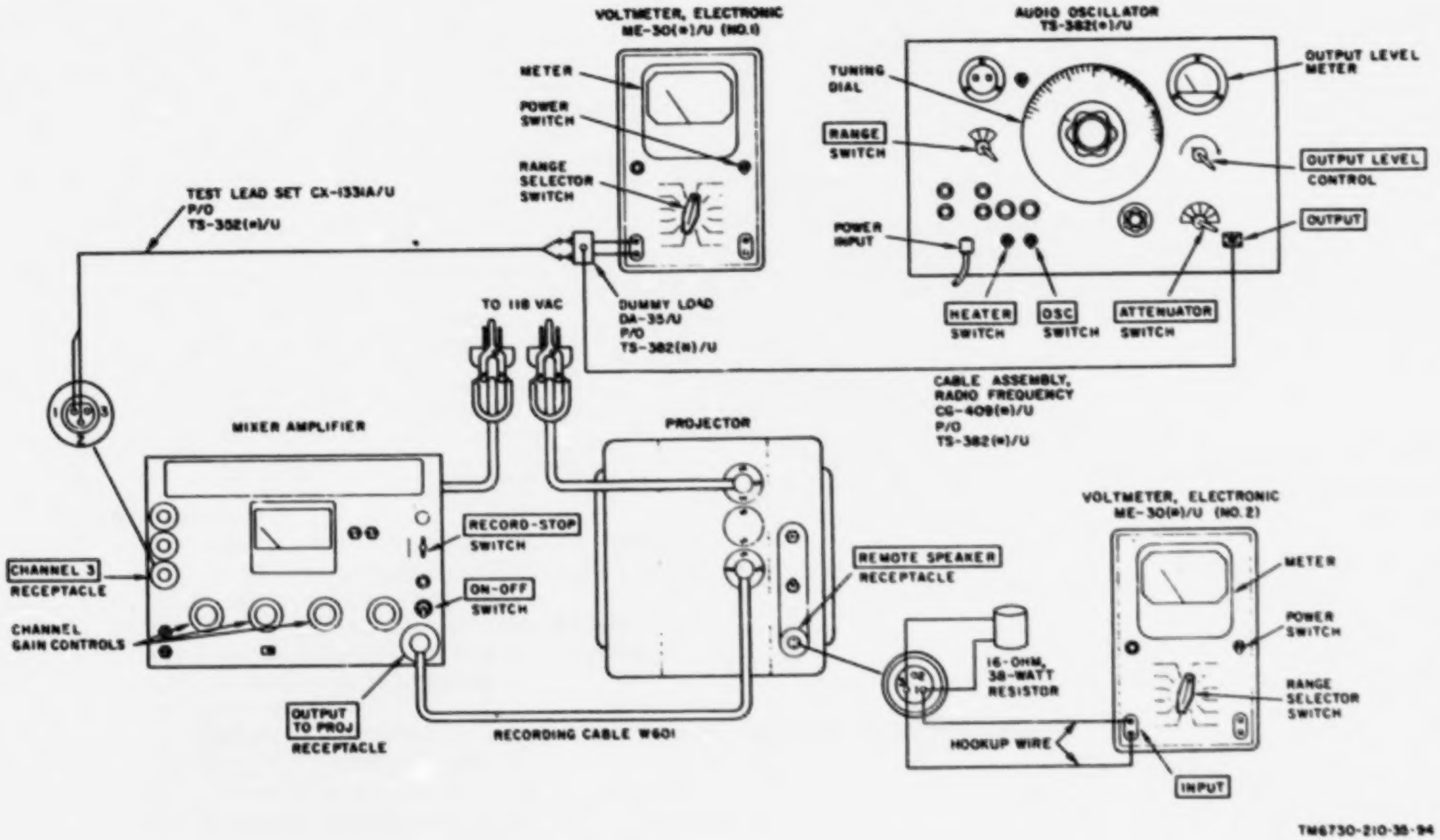

Figure 89. Record-reproduce frequency response test connections.

165. Record-Reproduce Frequency Response Test
(fig. 89)

a. Test Equipment and Materials.
(1) Voltmeter, Electronic ME-30(*)/U (2 each).
(2) Audio Oscillator TS-382(*)/U.
(3) Dummy Load DA-35/U.
(4) Resistor, 16 ohm, 38 watt.
(5) Magnetic film, blank (16 mm, Minnesota Mining and Mfg. Type #116 or equal).
(6) Test leads (4 each).

b. Test Connections and Conditions.
(1) Connect the equipment as shown in figure 89.
(2) Thread the projector with blank magnetic film.

c. Initial Test Equipment Calibration.
(1) Operate the TS-382(*)/U HEATER and OSC switches to ON.
(2) Allow 10 minutes for the test equipment to warm up.

d. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	*ME-30(*)/U (No. 1)* Power switch: ON Range selector switch: .03 VOLTS *ME-30(*)/U (No. 2)* Power switch: ON Range selector switch: 3 VOLTS *TS-382(*)/U* RANGE switch: X10 Tuning dial: 40 ATTENUATOR: X1	*Projector* OFF-MOTOR-LAMP switch: OFF OPTICAL MAGNETIC RECORD switch: RECORD *Projector Amplifier* ON-OFF switch: ON VOLUME control: fully counterclockwise. *Mixer-amplifier* ON-OFF switch: ON CHANNEL 1 and 2 gain controls: fully counterclockwise. CHANNEL 3 and MASTER gain controls: fully clockwise.	*a.* Adjust TS-382(*)/U OUTPUT LEVEL control to obtain reading of 2.5 on center scale of ME-30(*)/U No. 1. *b.* Operate OFF-MOTOR-LAMP switch to MOTOR. *c.* Operate mixer-amplifier RECORD-STOP switch to RECORD and release; record for approximately 30 seconds and operate RECORD-STOP switch to STOP and release. Operate OFF-MOTOR-LAMP switch to OFF. *Note.* This is recording No. 1.	*a.* None. *b.* None. *c.* Faint *click* is heard in projector and mixer-amplifiers as relays operate when RECORD-STOP switch is operated.
2	*TS-382(*)/U* RANGE switch: X1 Tuning dial: 50	....	Repeat test procedures step 1*a* through *c* above. *Note.* This is recording No. 2.	None.

3	*TS-382(*)/U* RANGE switch: X100 Tuning dial: 70		Repeat test procedures step 1*a* through *c* above. *Note.* This is recording No. 3.	None.
4			*a.* Operate projector REWIND switch to ON and rewind film back to beginning of recording No. 1; operate REWIND switch to OFF. *b.* Press in sound head MAGNETIC button and operate OFF–MOTOR–LAMP switch to MOTOR. During playback of recording No. 1, adjust projector amplifier VOLUME control to obtain reading of 0 db on scale of ME–30(*)/U No. 2. *c.* During playback of recording No. 2, note reading on db scale of ME–30(*)/U No. 2. *d.* During playback of recording No. 3, note reading on db scale of ME–30(*)/U No. 2.	*a.* None. *b.* 0 db. *c.* Reading is from −5 to +2 db. *d.* Reading is from −10 to +1½ db.

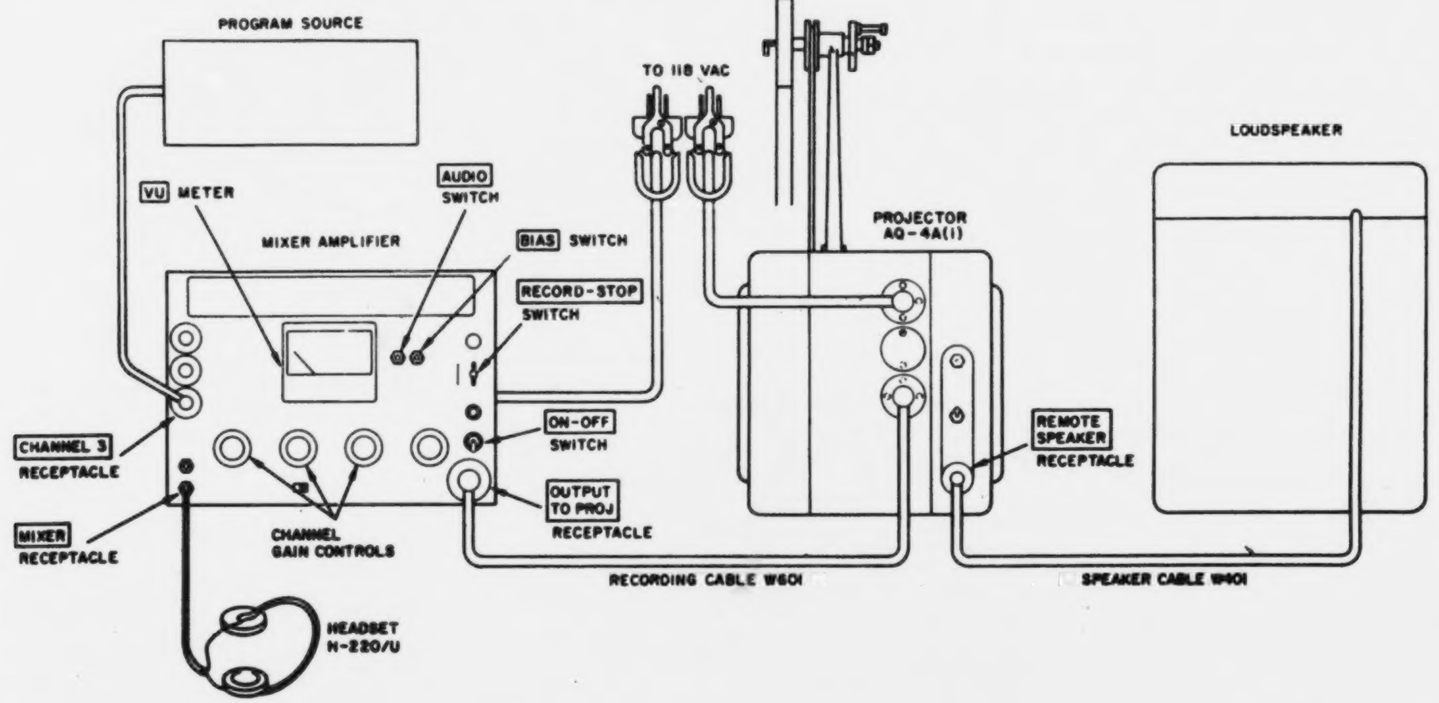

Figure 90. Operational test connections.

166. Operational Test
(fig. 90)

a. Test Equipment and Materials.
(1) Program source (tape recorder, record player, fm tuner, or equal).
(2) Magnetic film, blank (16 mm, Minnesota Mining and Mfg. #116 or equal).

b. Test Connections and Conditions.
(1) Connect the equipment as shown in figure 90.
(2) Thread the projector with blank magnetic film.

c. Procedure.

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	N/A	*Projector* OFF–MOTOR–LAMP switch: OFF REWIND switch: OFF OPTICAL MAGNETIC RECORD switch: RECORD *Projector Amplifier* Speaker selector switch: REMOTE SPEAKER ON ON–OFF switch: ON TONE control: NOR *Mixer-amplifier* ON–OFF switch: ON	*a.* Provide a musical selection at program source and adjust mixer-amplifier CHANNEL 3 and MASTER gain controls until signal peaks are not in excess of zero on VU meter. *b.* Depress and hold AUDIO switch and note maximum peak readings on VU meter.	*a.* None. *b.* Maximum peak readings −4 to −8 VU.
2	N/A		*a.* Operate OFF–MOTOR–LAMP switch to MOTOR. *b.* Operate RECORD–STOP switch to RECORD and release. *c.* Record 1 to 3 minutes of musical selection; during recording, press and hold BIAS switch and note readings on VU meter. *d.* Operate RECORD–STOP switch to STOP and OFF–MOTOR–LAMP switch to OFF.	*a.* None. *b.* Faint *click* is heard in projector and mixer amplifiers as relays operate. *c.* VU meter indicates from −2 to +2 VU when BIAS switch is pressed. *d.* None.
3	N/A		*a.* Operate REWIND switch to ON and rewind film back to beginning of recording. *b.* Press in MAGNETIC button and operate OFF–MOTOR–LAMP switch to MOTOR. Adjust projector amplifier VOLUME con-	*a.* None. *b.* Playback of recording has good sound quality with no apparent distortion of sound signal; no

Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
			trol for comfortable listening level.	objectionable clicks or thumps in recording.

167. Test Data Summary

a. PHYSICAL TEST AND INSPECTION (para 150).

Function	Performance standard
1. Physical condition of projector.	Satisfactory.
2. Physical condition of mixer-amplifier.	Satisfactory.
3. Physical condition of speaker.	Satisfactory.
4. Physical condition of cables, covers, and cases.	Satisfactory.
5. Condition of MFP varnish.	Satisfactory.
6. Implementation of MWO's.	MWO's performed and marked on equipment.

b. MECHANICAL TESTS (para 151).

Function	Performance standard
1. Fixed film rail and shuttle tooth lateral alignment.	Satisfactory.
2. Shuttle tooth protrusion	Center shuttle tooth must touch cutout surface of gage without moving gage.
3. Takeup reel tension	3 to 5 oz.
4. Feed reel tension	1 to 3 oz.
5. Film life	Satisfactory.

c. PROJECTION TESTS (para 152).

Function	Performance standard
1. Projector set operation	Satisfactory.
2. Picture steadiness:	
a. Maximum vertical displacement.	3/32 inch.
b. Maximum horizontal displacement.	3/32 inch.
3. Framing: minimum displacement.	2.5 inches.
4. Shutter synchronization: travel ghost.	None.
5. Screen illumination	No dark lines, spots, areas, color rings, or bends. Average illumination at points and four corners not less than 65% of illumination at center.

d. ELECTRICAL TESTS (para 153).

Function	Performance standard
1. Projector speed: output frequency.	400 cps ±4.
2. Low voltage start: 105-volt ac input.	Projector starts and operates properly.

e. FREQUENCY RESPONSE TEST (para 154).

Function	Performance standard
1. 70 cps	0 db to −4 db.
2. 100 cps	0 db ±1.5 db.
3. 1,000 cps	0 db ±1.5 db.
4. 7,000 cps	0 db ±1.5 db.

f. POWER OUTPUT AND DISTORTION TEST (para 155).

Function	Performance standard
1. 100 cps	0.2% or less.
2. 1,000 cps	0.2% or less.
3. 3,000 cps	0.2% or less.
4. 7,000 cps	0.2% or less.

g. SCANNING BEAM POSITIONING TEST (para 156).

Function	Performance standard
Output	0.09 volt or less.

h. SCANNING BEAM FOCUS TEST (para 157).

Function	Performance standard
Output	2 db or less.

i. TONE CONTROL TEST (para 158).

Function		Performance standard
TONE control	Frequency (cps)	
1. LO	100	−1 db to −5 db.
2. HI	100	−5 db minimum.
3. HI	3,500	−5 db to −9 db.
4. HI	5,000	−6 db to −10 db.
5. LO	5,000	−3 db minimum.

j. RESERVE AMPLIFICATION TEST (para 159).

Function	Performance standard
Rated output with input voltage of 0.018 volt.	Minimum of 11 volts across 16-ohm load (7.56 watts).

k. OVERALL NOISE TEST (para 160).

Function	Performance standard
Noise level at rated output	0.11 volt or less.

l. MAGNETIC FREQUENCY RESPONSE TEST (para 161).

Function	Performance standard
1. 50 cps	+3 db to −4 db.
2. 100 cps	+2 db to −2 db.
3. 200 cps	+2 db to −2 db.
4. 300 cps	+2 db to −2 db.
5. 500 cps	+2 db to −2 db.
6. 1,000 cps	+2 db to −2 db.
7. 2,000 cps	+2 db to −2 db.
8. 3,000 cps	+2 db to −2.5 db.
9. 4,000 cps	+2 db to −4 db.
10. 5,000 cps	+2 db to −6 db.
11. 6,000 cps	+2 db to −8 db.
12. 7,000 cps	+1.5 db to −10 db.

m. DYNAMIC RANGE TEST (para 162).

Function	Performance standard
Noise level at rated magnetic output.	0.11 volt or less.

n. DIALOGUE EQUALIZER TEST (para 163).

Function		Performance standard
DIALOGUE switch	Frequency (cps)	
1. OUT	400	0 db.
2. IN	400	−2 db to −5 db.
3. IN	50	−2 db to −4 db.
4. OUT	50	−3 db to −6 db.
5. OUT	7,000	−2 db to −7 db.
6. IN	7,000	−2 db to −7 db.

o. DISTORTION AND LINEARITY TEST (para 164).

Function	Performance standard
1. Harmonic distortion at 0.5-volt input to CHANNEL 3 and 0.8-volt output.	1.5% or less.
2. Linearity at 0.16-volt input to CHANNEL 3.	−9.5 db to −10.5 db.
3. Linearity at 1.6-volt input to CHANNEL 3.	−0.5 db to +0.5 db.

p. RECORD-REPRODUCE FREQUENCY RESPONSE TEST (para 165).

Function	Performance standard
1. Operation of RECORD-STOP switch.	Satisfactory.
2. Playback output, 400 cps	0 db.
3. Playback output, 50 cps	−5 db to +2 db.
4. Playback output, 7,000 cps.	−10 db to +1.5 db.

q. OPERATIONAL TEST (para 166).

Function	Performance standard
1. Operation of AUDIO switch.	−4 VU to −8 VU.
2. Operation of RECORD-STOP switch.	Satisfactory.
3. Operation of BIAS switch.	+2 VU to −2 VU.
4. Playback quality	Satisfactory.

CHAPTER 6

DEPOT INSPECTION STANDARDS

168. Applicability of Depot Inspection Standards

The tests outlined in this chapter are designed to measure the performance capability of a repaired equipment. Equipment that is returned to stock should meet the standards given in these tests.

169. Applicable References

a. Repair Standards. Applicable procedures of the Army depots performing these tests and the general standards for repaired equipment given in TB SIG 355-1, TB SIG 355-2, and TB SIG 355-3 form a part of the requirements for testing this equipment.

b. Technical Publications. The technical publications applicable for testing the projector set are listed in the appendix.

c. Modification Work Orders. Perform the work specified by the modification Work Orders (MWO's) pertaining to the projection set *before* making the tests specified. DA Pam 310-7 lists all available MWO's.

170. Test Requirements

The test requirements for the depot inspection standards are the same as the test requirements for the general support maintenance test procedure (para 167). Equipment that is tested and meets the performance standards given in paragraphs 148 through 166 should be considered as having passed the depot inspection standard.

APPENDIX A

REFERENCES

The following is a list of applicable references available to the repairman of Projection Set, Motion Picture, Sound AS-7A:

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 4, 6, 7, 8, and 9), Supply Bulletins, Lubrication Orders.
DA Pam 310-7	Index of Modification Work Orders.
TB SIG 306	Electronic Tachometer TS-806/U.
TB SIG 355-2	Depot Inspection Standard for Refinishing Repaired Signal Equipment.
TB SIG 355-3	Depot Inspection Standard for Moisture and Fungus Resistant Treatment.
TM 11-662	Basic Theory and Application of Electron Tubes.
TM 11-5097	Spectrum Analyzers TS-723A/U, TS-723B/U, and TS-723C/U.
TM 11-5540	Electric Light Assembly MX-1292/PAQ.
TM 11-5965-229-15P	Organizational, DS, GS, and Depot Maintenance Repair Parts Loudspeakers, Permanent Magnet LS-170/PFP-1, LS-170A/PFP-1, and LS-170B/PFP-1.
TM 11-6625-200-15	Operator, Organizational, DS, GS, and Depot Maintenance Manual: Multimeters ME-26A/U, ME-26B/U, ME-26C/U and ME-26D/U.
TM 11-6625-218-12	Organizational Maintenance Manual: Frequency Meter AN/TSM-16.
TM 11-6625-261-12	Operator's and Organizational Maintenance Manual: Audio Oscillators TS-382A/U, TS-382B/U, TS-382D/U, TS-382E/U, and TS-382F/U.
TM 11-6625-320-12	Operator and Organizational Maintenance Manual: Voltmeter, Meter ME-30A/U and Voltmeters, Electronic ME-30B/U and ME-30C/U.
TM 11-6730-210-10	Operator's Manual: Projection Set, Motion Picture, Sound AS-7A.
TM 11-6730-210-20	Organizational Maintenance Manual: Projection Set, Motion Picture, Sound AS-7A.
TM 11-6760-212-12	Operation and Organizational Maintenance Manual: Flutter Indicator ID-851/U.

APPENDIX B

DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

B-1. Scope

This appendix lists repair parts, test, and support equipment required for the performance of direct support, general support, and depot maintenance of the Projection Set, Motion Picture, Sound AS-7A.

B-2. General

This repair parts list is divided into the following sections:

a. Repair Parts—Section II. A list of repair parts authorized for the performance of maintenance at the direct support, general support, and depot level.

b. Special Tools, Test and Support Equipment—Section III. Not applicable.

c. Federal Stock Number and Reference Number Cross-Reference to Item Sequence Number Index—Section IV. A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alphanumerical sequence, cross-referenced to the item sequence number.

d. Reference Designation Cross-Reference to Item Sequence Number Index—Section V. A list of Reference Designations in ascending alphanumerical sequence, cross-referenced to the item sequence number.

B-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in section II.

a. Source, Maintenance, and Recoverability Codes (SMR), Column 1.

(1) Source codes, indicate the selection status and source for the listed item. Source codes used are—

Code	*Explanation*
P	Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system and authorized for use at indicated maintenance categories.
P2	Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system.
P9	Assigned to items which are NSA design controlled: Unique repair parts, special tools, test, measuring, and diagnostic equipment, which are stocked and supplied by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41.
P10	Assigned to items which are NSA design controlled: Special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and which are stocked and supplied by the Army COMSEC logistic system.
M	Repair parts which are not procured or stocked, but are to be manufactured in indicated maintenance levels.

Code *Explanation*

A—Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately, and can be assembled to form the required assembly at indicated maintenance categories.

X—Parts and assemblies which are not procured or stocked and the mortality of which normally is below that of the applicable end item or component. The failure of such part or assembly should result in retirement of the end item from the system.

X1—Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component.

X2—Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibalization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels.

C—Repair parts authorized for local procurement. Where such repair parts are not obtainable from local procurement, requirements will be requisitioned through normal supply channels accompanied by a supporting statement of nonavailability from local procurement.

G—Major assemblies that are procured with PEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

(2) Maintenance codes, indicate the lowest category of maintenance authorized to install the listed item. The maintenance level codes are—

Code	*Explanation*
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenance

(3) Recoverability codes, indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are—

Code *Explanation*

R—Repair parts and assemblies that are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis.

S—Repair parts and assemblies that are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically repairable, they will be evacuated to a depot for evaluation and analysis before final disposition.

T—High-dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.

U—Repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, or high-dollar value reusable casings or castings.

b. Federal Stock Number, Column 2. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description, Column 3. This column indicates the sequence number, indenture code, Federal item name, and any additional description of the item required. The first entry in this column is the item sequence number of the listed item. A sequence number suffixed with the letter "D" shows the item as deleted. An asterisk indicates attaching hardware. Second is the alpha letter indenture code. This code reflects the assembly breakdown of the listed item. The indenture code is followed by the Federal item name and any additional description, a part number or other reference number, and the applicable five-digit Federal supply code for manufacturers in parentheses. On subsequent appearances of an item, the part number and Federal supply code is replaced by "SAME AS" (applicable sequence number).

d. Unit of Measure (U/M), Column 4. A two-character alphabetical abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft. and ea.

e. Quantity Incorporated in Unit, Column 5. This column indicates the quantity of the item used in the assembly. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated, e.g., shims, spacers, etc.

f. 30-Day DS/GS Maintenance Allowances, Columns 6 and 7.

NOTE

Allowances in GS column are for GS maintenance only.

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn, opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS/GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51-100 allowance column. *Example:* authorized alllowance for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

g. One-Year Allowances per 100 Equipments/Contingency Planning Purposes, Column 8. This column indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for 1 year.

h. Depot Maintenance Allowance per 100 Equipments, Column 9. This column indicates opposite the first appearance of each item, the total quantity authorized for depot maintenance of 100 equipments. Subsequent appearances of the same item will have the letters "REF" in the allowance column. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

i. Illustration, Column 10. This column is divided as follows:

(1) *Figure number, column 10a.* Indicates the figure number in which the item is shown.

(2) *Item number, column 10b.* Indicates the reference designation to reference the item in the illustration.

B-4. Special Information

a. Repair parts mortality is computed from failure rates derived from experience factors with the individual parts in a variety of equipments. Variations in the specific application and periods of use of electronics equipment, the fragility of electronic piece parts, plus intangible material and quality factors intrinsic to the manufacture of electronic parts, do not permit mortality to be based on hours of end item use. However, long periods of continuous use under adverse conditions are likely to increase repair parts mortality.

b. Split coding such as AF, MD, PH, etc., found in the source column indicates parts which require manufacture, assembly, or stockage at a category higher than that authorized to install the item. *For example*, an item coded MD-O denotes the source of the item to be manufactured (M) at the depot level (D) and authorized for installation at the organizational level (O).

B-5. How to Locate Repair Parts

a. When Federal stock number or reference number is unknown—

(1) *First*. Find the illustration covering the assembly group to which the repair part belongs.

(2) *Second*. Identify the repair part on the illustration and note the complete reference designation used to call out the item.

(3) *Third*. Using the reference designation cross-reference to item sequence number index (sec. V), find the reference designation and note the item sequence number listed.

(4) *Fourth*. Locate the item sequence number in the repair parts list (sec. II).

b. When Federal stock number or reference number is known—

(1) *First*. Using the Federal stock number and reference number cross-reference to item sequence number index (sec. IV), find the pertinent Federal stock number or reference number and note the item sequence number listed.

(2) *Second*. Locate the item sequence number in the repair parts list (sec. II).

c. When reference designation is known—

(1) *First*. Using the reference designation cross-reference to item sequence number index (sec. V), find the reference designation and note the item sequence number listed.

(2) *Second*. Locate the item sequence number in the repair parts list (sec. II).

B-6. Federal Supply Codes for Manufacturers

Code	*Manufacturer*
43991	Norma FAG Bearings Corp., Hamilton Ave., Stamford, Conn. 06904
60380	Torrington Co., 59 Field, Torrington, Conn. 06790
78189	Illinois Tool Works, Inc., Shakeproof Div. St. Charles Road, Elgin, Ill. 60126
80063	Army Electronics Command Procurement and Production Directorate, Fort Monmouth, N.J. 07703
81349	Military Specifications Promulgated By Standardization Div. Directorate of Logistics Services, Inc.
86242	Compco Corp., 1800 N. Spaulding Ave., Chicago, Ill. 60647
88044	Aeronautical Standards Group—Dept. of Navy and Air Force, Silver Spring, Md.
96906	Military Standards Promulgated By Standardization Div. Directorate of Logistic Services, DSA.

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
G--O-S	6730-889-3394	A001 A PROJECTION SET, MOT PICTURE, SND: AS7A; (80063)	EA	1										
G--O-S	5965-187-4277	A002 B LOUDSPEAKER, PERMANENT MAGNET: SEE TM11-6965-229-15P SMD339115; (80063)	EA	1										A1
G--O-S	6730-892-3891	A003 B AMPLIFIER ASSEMBLY, AF, BQ-5A SMC446801; (80063)	EA	1										A2
A--F-S		A004 C AMPLIFIER, AUDIO FREQUENCY: SMD446813; (80063)	EA	1									17	A2A1
P--F	5305-054-6667	A005 • SCREW, MACHINE: MS51957-42; (96906)	EA	4	1	1	2	1	1	1	27	15	72	A2H1
X2-F		A006 • WASHER, FLAT: SMB338648; (80063)	EA	4									72	A2H2
P--F	5310-559-0070	A007 • WASHER, LOCK: MS35333-38; (96906)	EA	4	5	11	20	1	3	5	242	200	72	A2H3
M--D		A008 D BRACKET, GRILLE: SMB446846; (80063)	EA	1										A2A1A1
X2-F		A009 • NUT, PLAIN, HEXAGON: SMD446813-4; (80063)	EA	3									72.1	A2A1H1
X2-F	5305-208-4861	A010 • SCREW, MACHINE: MS35223-27; (96906)	EA	3									72.1	A2A1H2
X2-F	5310-579-0079	A011 • WASHER, LOCK: MS35333-37; (96906)	EA	3									72.1	A2A1H3
P--H	5340-508-5934	A012 E LOCKSPRING, TURNLOCK FASTENER: SMB446846-1; (80063)	EA	1				•	1	1	13	6		A2A1A1MP1
P--H	5320-638-2724	A013 • RIVET, TUBULAR: SMB446846-2; (80063)	EA	2				1	1	1	27	15		A2A1A1H1
M--D		A014 D BRACKET, GRILLE: SAME AS A008	EA	1										A2A1A2
X2-F		A015 • NUT, PLAIN, HEXAGON: SAME AS A009	EA	3										A2A1H4
X2-F	5305-208-4861	A016 • SCREW, MACHINE: SAME AS A010	EA	3										A2A1H5
X2-F	5310-579-0079	A017 • WASHER, LOCK: SAME AS A011	EA	3										A2A1H6
P--H	5340-508-5934	A018 • LOCKSPRING, TURNLOCK FASTENER: SAME AS A012	EA	1				REF	REF	REF	REF	REF		A2A1A2MP1
P--H	5320-638-2724	A019 • RIVET, TUBULAR: SAME AS A013	EA	2				REF	REF	REF	REF	REF		A2A1A2H1
A--F		A020 D CABLE ASSEMBLY, POWER, ELEC: SMC446825; (80063)	EA	1									17	A2A1W301
X2-F		A021 • CLAMP, LOOP: SMD446813-14; (80063)	EA	1									72.2	A2A1H7
X2-F		A022 • CLAMP, LOOP: SMD446813-15; (80063)	EA	1									72.2	A2A1H8
P--F	5310-610-0461	A023 • NUT, PLAIN, HEXAGON: AN340-4; (88044)	EA	1	2	4	8	1	1	2	101	75	72.2	A2A1H9
P--F	5305-558-4889	A024 • SCREW, MACHINE: MS35223-14; (96906)	EA	1	1	3	5	1	1	1	46	30	72.2	A2A1H10
X2-	5305-208-4861	A025 • SCREW, MACHINE: SAME AS A010	EA	1									72.2	A2A1H11

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-193-7577	A026 • WASHER, LOCK: MS35333-36; (96906)	EA	1	7	16	29	2	4	7	352	300	72.2	A2A1H12
X2-F	5310-579-0079	A027 • WASHER, LOCK: SAME AS A011	EA	1									72.2	A2A1H13
M--D		A028 E CABLE, POWER, ELECTRICAL: SMC446825-1; (80063)	EA	1										A2A1W1W1
P--F	5935-843-7362	A029 E CONNECTOR, PLUG, ELECTRICAL: SMB339153; (80063)	EA	1	•	1	1	•	1	1	13	6	17	A2A1W301P301
M--D		A030 D CABLE ASSEMBLY, RADIO FREQUENCY: SMB446858; (80063)	EA	1										A2A1W2
M--D		A031 D CABLE ASSEMBLY, RADIO FREQUENCY: SMB446857; (80063)	EA	1										A2A1W3
M--D		A032 D CABLE ASSEMBLY, RADIO FREQUENCY: SMB446871; (80063)	EA	1										A2A1W19
P--F	5910-451-2314	A033 D CAPACITOR, FIXED, CERAMIC DIEL: SMB446820; (80063)	EA	1	•	•	1	•	•	1	8	3	72.1	A2A1C309
P--F	5910-678-5306	A034 D CAPACITOR, FIXED, CERAMIC DIEL: SMB446833; (80063)	EA	4	1	1	2	1	1	1	27	15	17	A2A1C321
P--F	5910-678-5306	A035 D CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A034	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1C322
P--F	5910-678-5306	A036 D CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A034	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1C323
P--F	5910-678-5306	A037 D CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A034	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1C324
P--F	5910-579-3064	A038 D CAPACITOR, FIXED, ELECTROLYTIC: SMB338978; (80063)	EA	2	•	1	1	•	1	1	13	6	17	A2A1C301
P--F	5910-579-3064	A030 D CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A038	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1C302
X2-F		A040 • RETAINER, CAPACITOR: SMB338952; (80063)	EA	1									72.2	A2A1H14
P--F	5305-576-0528	A041 • SCREW, MACHINE: MS35223-47; (96906)	EA	1	•	•	1	•	•	1	8	3	72.2	A2A1H15
P--F	5910-112-6884	A042 D CAPACITOR, FIXED, PAPER DIEL: CP53B1FF105V; (81349)	EA	1	•	•	1	•	•	1	8	3	17	A2A1C303
P--F	5910-112-7399	A043 D CAPACITOR, FIXED, PAPER DIEL: CP53B1FF205V; (81349)	EA	2	•	1	1	•	1	1	13	6	17	A2A1C327
P--F	5910-112-7399	A044 D CAPACITOR, FIXED, PAPER DIEL: SAME AS A043	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1C328
P--F	5310-610-0461	A045 • NUT, PLAIN, HEXAGON: SAME AS A023	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	72.2	A2A1H16
Xa-F	5305-638-3313	A046 • SCREW, MACHINE: MS35223-55; (96906)	EA	2									72.2	A2A1H17
M--D		A047 • SPACER, SLEEVE: SMB446849; (80063)	EA	4									72.2	A2A1H18
P--F	5910-112-7401	A048 D CAPACITOR, FIXED, PAPER DIEL: SMB338702 (80063)	EA	1	•	1	1	•	1	1	13	6	17	A2A1C306
X2-F		A049 • NUT, PLAIN, HEXAGON: SAME AS A009	EA	2										A2A1H19
Xa-F	5305-208-4861	A050 • SCREW, MACHINE: SAME AS A010	EA	2										A2A1H20

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5310-579-0079	A051 * WASHER, LOCK: SAME AS A011	EA	2										A2A1H21
X2-F		A052 D CHASSIS, ELECTRICAL EQUIPMENT: SMD446841; (80063)	EA	1									72	A2A1A3
X2-F		A053 * NUT, PLAIN, CLINCH: SMD446841-1; (80063)	EA	10										A2A1A3H1
P--F	5935-825-4196	A054 D CONNECTOR, RECEPTACLE, ELEC: SMB446866; (80063)	EA	2	*	1	1	*	1	1	13	6	72.1	A2A1J301
P--F	5935-825-4196	A055 D CONNECTOR, RECEPTACLE, ELEC: SAME AS A054	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1J302
P--F	5310-610-0461	A056 * NUT, PLAIN, HEXAGON: SAME AS A023	EA	6	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H22
P--F	5305-558-4889	A057 * SCREW, MACHINE: SAME AS A024	EA	6	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H23
X2-F	5310-551-7770	A058 * WASHER, LOCK: MS35337-40; (96906)	EA	6										A2A1H24
P--F	5935-729-8937	A059 D CONNECTOR, RECEPTACLE, ELEC: SMB446870; (80063)	EA	1	*	*	1	*	*	1	8	3	72.1	A2A1J303
P--F	5310-610-0461	A060 * NUT, PLAIN, HEXAGON: SAME AS A023	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H25
P--F	5305-558-4889	A061 * SCREW, MACHINE: SMAE AS A024	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H26
P--F	5310-193-7577	A062 * WASHER, LOCK: SAME AS A026	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H27
P--F	5935-257-7204	A063 D CONNECTOR, RECEPTACLE, ELEC: SMB446865; (80063)	EA	1	*	*	1	*	*	1	8	3	18	A2A1J305
X2-F		A064 * NUT, PLAIN, HEXAGON: SMD446813-9; (80063)	EA	4									72.1	A2A1H28
X2-F		A065 * SCREW, MACHINE: SMD446813-8; (80063)	EA	4									72.1	A2A1H29
P--F	5310-193-7577	A066 * WASHER, LOCK: SAME AS A026	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H30
P--O	5960-812-0705	A067 D ELECTRON TUBE: SMD446813-1; (80063)	EA	3	1	3	5	1	1	1	46	30	18	A2A1V301
P--O	5960-812-0705	A068 D ELECTRON TUBE: SAME AS A067	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	18	A2A1V302
P--O	5960-812-0705	A069 D ELECTRON TUBE: SAME AS A067	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	18	A2A1V303
P--O	5960-166-7663	A070 D ELECTRON TUBE: SMD446813-2; (80063)	EA	2	1	2	3	1	1	1	33	20	18	A2A1V304
P--O	5960-166-7663	A071 D ELECTRON TUBE: SAME AS A070	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	18	A2A1V306
P--O	5960-272-9182	A072 D ELECTRON TUBE: SMD446813-3; (80063)	EA	1	*	1	2	*	1	1	19	10	18	A2A1V305
A--F		A073 D ELECTRONIC COMPONENTS ASSEMBLY: SMC446851; (80063)	EA	1									72.2	A2A1A4
X2-F	5310-934-9757	A074 * NUT, PLAIN, HEXAGON: MS35649-282; (96906)	EA	4									72.2	A2A1H31
X2-F	5305-984-6191	A075 * SCREW, MACHINE: MS35206-243; (96906)	EA	4									72.2	A2A1H32

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-559-0070	A076 • WASHER, LOCK: SAME AS A007	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	72.2	A2A1H33
M--D		A077 E BRACKET, CAPACITOR: SMB446852; (80063)	EA	1										A2A1A4MP1
M--D		A078 E CABLE ASSEMBLY, RADIO FREQUENCY: SMB446854; (80063)	EA	1										A2A1A4W1
X2-F	5310-596-7133	A079 E NUT, SELF-LOCKING, CLINCH: SMC446851-2; (80063)	EA	1										A2A1A4MP2
P--F	5905-141-1073	A080 E RESISTOR, FIXED, COMPOSITION: MS35043-220; (96906)	EA	3	1	3	5	1	1	1	53	35	17	A2A1A4R312
P--F	5905-141-1073	A081 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1A4R318
P--F	5905-141-1073	A082 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1A4R317
P--F	5935-931-0522	A083 E SOCKET, CAPACITOR: SMC446851-1; (80063)	EA	2	*	1	1	*	1	1	13	6	17	A2A1A4XC301
P--F	5935-931-0522	A084 E SOCKET, CAPACITOR: SAME AS A083	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1A4XC302
X2-F	5310-934-9747	A085 • NUT, PLAIN, HEXAGON: MS35649-262; (96906)	EA	4									72.2	A2A1A4H1
X2-F	5305-208-4861	A086 • SCREW, MACHINE: SAME AS A010	EA	4									72.2	A2A1A4H2
X2-F	5310-579-0079	A087 • WASHER, LOCK: SAME AS A011	EA	4										A2A1A4H3
A--F	5940-177-6500	A088 E TERMINAL BOARD: SMB446853; (80063)	EA	1									17	A2A1A4TB302
X2-F	5310-934-9747	A089 • NUT, PLAIN, HEXAGON: SAME AS A085	EA	2										A2A1A4H4
X2-F	5305-208-4861	A090 • SCREW, MACHINE: SAME AS A010	EA	2										A2A1A4H5
X2-F	5310-579-0079	A091 • WASHER, LOCK: SAME AS A011	EA	2										A2A1A4H6
A--F		A092 D ELECTRONIC COMPONENTS ASSEMBLY: SMD446832; (80063)	EA	1									20	A2A1A5
X2-F		A093 • NUT, PLAIN, HEXAGON: SAME AS A009	EA	2										A2A1H34
X2-F	5305-208-4861	A094 • SCREW, MACHINE: SAME AS A010	EA	2									72.2	A2A1H35
X2-F	5310-579-0079	A095 • WASHER, LOCK: SAME AS A011	EA	2									72.2	A2A1H36
M--D		A096 E BRACKET, ANGLE: SMB446838; (80063)	EA	1									72.2	A2A1A5MP1
X2-F	5305-208-4861	A097 • SCREW, MACHINE: SAME AS A010	EA	1									72.2	A2A1A5H5
X2-F	5310-579-0079	A098 • WASHER, LOCK: SAME AS A011	EA	1										A2A1A5H6
M--D		A099 E BRACKET, ANGLE: SMB446837; (80063)	EA	2										A2A1A5MP2
M--D		A100 E BRACKET, ANGLE: SAME AS A099	EA	REF										A2A1A5MP3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5305-208-4861	A101 * SCREW, MACHINE: SAME AS A010	EA	2										A2A1A5H1
X2-F	5310-579-0079	A102 * WASHER, LOCK: SAME AS A011	EA	2										A2A1A5H2
P--F	5910-451-2312	A103 E CAPACITOR, FIXED, CERAMIC DIEL: SMB338891; (80063)	EA	2	1	2	3	1	1	1	33	20	20	A2A1A5C310
P--F	5910-451-2312	A104 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5C330
P--F	5910-451-2315	A105 E CAPACITOR, FIXED, CERAMIC DIEL: SMB446836; (80063)	EA	1	•	•	1	•	•	1	8	3	20	A2A1A5C313
P--F	5910-669-3061	A106 E CAPACITOR, FIXED, CERAMIC DIEL: SMB446677; (80063)	EA	5	1	1	2	1	1	1	27	15	20	A2A1A5C314
P--F	5910-669-3061	A107 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A106	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5C315
P--F	5910-669-3061	A108 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A106	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5C316
P--F	5910-669-3061	A109 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A106	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5C317
P--F	5910-669-3061	A110 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A106	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5C319
P--F	5910-823-1068	A111 E CAPACITOR, FIXED, CERAMIC DIEL: SMB338939; (80063)	EA	1	•	1	1	•	1	1	13	6	20	A2A1A5C318
P--F	5950-451-4113	A112 E REACTOR: SMB446839; (80063)	EA	1	•	•	1	•	•	1	8	3		A2A1A5L302
X2-F		A113 * NUT, PLAIN, HEXAGON: SMD446832-1; (80063)	EA	1										A2A1A5H3
P--F	5310-193-7577	A114 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A2A1A5H4
P--F	5905-141-1073	A115 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	5	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R309
P--F	5905-141-1073	A116 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R313
P--F	5905-141-1073	A117 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R319
P--F	5905-141-1073	A118 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R320
P--F	5905-141-1073	A119 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R321
P--F	5905-192-3982	A120 E RESISTOR, FIXED, COMPOSITION: MS35053-31; (96906)	EA	2	1	2	3	1	1	1	33	20	20	A2A1A5R310
P--F	5905-192-3982	A121 E RESISTOR, FIXED, COMPOSITION: SAME AS A120	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R315
P--F	5905-295-3409	A122 E RESISTOR, FIXED, COMPOSITION: MS35043-27; (96906)	EA	2	•	1	2	•	1	1	18	9	20	A2A1A5R311
P--F	5905-295-3409	A123 E RESISTOR, FIXED, COMPOSITION: SAME AS A122	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R314
P--F	5905-104-8316	A124 E RESISTOR, FIXED, COMPOSITION: MS35043-28; (96906)	EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R322
P--F	5905-256-0387	A125 E RESISTOR, FIXED, COMPOSITION: MS35043-12; (96906)	EA	2	•	1	1	•	1	1	13	6	20	A2A1A5R323

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(3) USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5905-256-0387	A126 E RESISTOR, FIXED, COMPOSITION: SAME AS A125		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R325
P--F	5905-195-6451	A127 E RESISTOR, FIXED, COMPOSITION: MS35043-17; (96906)		EA	2	•	1	1	•	1	1	13	6	20	A2A1A5R324
P--F	5905-195-6451	A128 E RESISTOR, FIXED, COMPOSITION: SAME AS A127		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R326
P--F	5905-104-8337	A129 E RESISTOR, FIXED, COMPOSITION: MS35043-84; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R327
P--F	5905-192-3987	A130 E RESISTOR, FIXED, COMPOSITION: MS35043-25; (96906)		EA	1	•	1	1	•	1	1	13	6	20	A2A1A5R328
P--F	5905-798-1736	A131 E RESISTOR, FIXED, COMPOSITION: MS35043-14; (96906)		EA	2	•	1	1	•	1	1	13	6	20	A2A1A5R329
P--F	5905-798-1736	A132 E RESISTOR, FIXED, COMPOSITION: SAME AS A131		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R332
P--F	5905-279-1866	A133 E RESISTOR, FIXED, COMPOSITION: MS35043-37; (96906)		EA	1	1	1	2	1	1	1	27	15	20	A2A1A5R330
P--F	5905-141-0596	A134 E RESISTOR, FIXED, COMPOSITION: MS35043-23; (96906)		EA	1	•	1	1	•	1	1	13	6	20	A2A1A5R331
P--F		A135 E RESISTOR, FIXED, COMPOSITION: MS35043-15; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R333
P--F	5905-171-1985	A136 E RESISTOR, FIXED, COMPOSITION: MS35043-209; (96906)		EA	1	•	1	1	•	1	1	13	6	20	A2A1A5R334
P--F	5905-192-3981	A137 E RESISTOR, FIXED, COMPOSITION: RC20GF124J; (81349)		EA	3	•	1	2	•	1	1	18	9	20	A2A1A5R335
P--F	5905-192-3981	A138 E RESISTOR, FIXED, COMPOSITION: SAME AS A137		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R338
P--F	5905-192-3981	A139 E RESISTOR, FIXED, COMPOSITION: SAME AS A137		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	AeA1A5R339
P--F	5905-279-2593	A140 E RESISTOR, FIXED, COMPOSITION: MS35043-72; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R341
P--F	5905-279-1886	A141 E RESISTOR, FIXED, COMPOSITION: MS35043-195; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R342
P--F	5905-195-6449	A142 E RESISTOR, FIXED, COMPOSITION: MS35045-17; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R345
P--F	5905-171-1974	A143 E RESISTOR, FIXED, COMPOSITION: MS35045-15; (96906)		EA	3	•	1	2	•	1	1	18	9	20	A2A1A5R346
P--F	5905-171-1974	A144 E RESISTOR, FIXED, COMPOSITION: SAME AS A143		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R348
P--F	5905-171-1974	A145 E RESISTOR, FIXED, COMPOSITION: SAME AS A143		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R349
P--F	5905-141-1116	A146 E RESISTOR, FIXED, COMPOSITION: MS35043-208; (96906)		EA	1	•	1	2	•	1	1	18	9	20	A2A1A5R347
P--F	5905-446-0147	A147 E RESISTOR, FIXED, COMPOSITION: MS35043-100; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R350
P--F	5905-185-8518	A148 E RESISTOR, FIXED, COMPOSITION: MS35043-19; (96906)		EA	2	1	2	3	1	1	1	33	20	20	A2A1A5R351
P--F	5905-185-8518	A149 E RESISTOR, FIXED, COMPOSITION: SAME AS A148		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R352
P--F	5905-185-6944	A150 E RESISTOR, FIXED, COMPOSITION: MS35043-219; (96906)		EA	1	•	•	1	•	•	1	8	3	20	A2A1A5R353

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P—F	5905-279-2029	A151 E RESISTOR, FIXED, COMPOSITION: MS35043-21; (96906)	EA	1	*	*	1	*	*	1	8	3	20	A2A1A5R354
P—F	5905-116-8558	A152 E RESISTOR, FIXED, COMPOSITION: MS35043-163; (96906)	EA	2	*	1	2	*	1	1	18	9	20	A2A1A5R355
P—F	5905-116-8558	A153 E RESISTOR, FIXED, COMPOSITION: SAME AS A152	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	1A2A5R357
P—F	5905-299-2007	A154 E RESISTOR, FIXED, COMPOSITION: MS35043-24; (96906)	EA	2	*	1	1	*	1	1	13	6	20	A2A1A5R356
P—F	5905-299-2007	A155 E RESISTOR, FIXED, COMPOSITION: SAME AS A154	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	20	A2A1A5R358
P—F	5940-177-6504	A156 E TERMINAL BOARD: SMC446834; (80063)	EA	1	*	*	1	*	*	1	8	3	20	A2A1A5TB301
P—O	5920-284-6733	A157 D FUSE, CARTRIDGE: SMB338972; (80063)	EA	1	1	3	5	1	1	1	46	30	T2.1	A2A1F301
P—F	5920-933-4052	A158 D FUSEHOLDER: SMD446813-6; (80063)	EA	1	*	*	1	*	*	1	8	3	T2.1	A2A1XF301
P—F	6730-178-5833	A159 D GRILLE, METAL: SMD446814; (80063)	EA	1	*	*	1	*	*	1	8	3	T2.1	A2A1A6
P—F	5325-282-8138	A160 * STUD, TURNLOCK FASTENER: SMB138086; (80063)	EA	2	1	1	2	1	1	1	27	15	T2	A2A1A6H1
X2-F		A161 D GRILLE, METAL: SMC446840; (80063)	EA	1									T2	A2A1MP1
X2-F	5305-208-4861	A162 * SCREW, MACHINE: SAME AS A010	EA	10									T2	A2A1H37
X2-F	5310-579-0079	A163 * WASHER, LOCK: SAME AS A011	EA	10									T2	A2A1H38
P—F	5935-950-9817	A164 D JACK, TELEPHONE: SMB338970; (80063)	EA	2	*	1	2	*	1	1	18	9	T2.1	A2A1J306
P—F	5935-950-9817	A165 D JACK, TELEPHONE: SAME AS A164	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	T2.1	A2A1J307
X2-F		A166 * NUT, PLAIN, HEXAGON: MS25082-87; (96906)	EA	2										A2A1H39
X2-F		A167 * WASHER, LOCK: SMD446813-10; (96906)	EA	2										A2A1H40
P—O	5355-284-5177	A168 D KNOB: SMD446819; (80063)	EA	1	1	1	2	1	1	1	27	15	T2.1	A2A1MP2
P—O	5305-719-5349	A169 * SETSCREW: MS51963-37; (96906)	EA	1	1	1	2	1	1	1	27	15	T2.1	A2A1H81
P—O	5355-284-5177	A170 D KNOB: SAME AS A168	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	T2.1	A2A1MP3
P—O	5305-719-5349	A171 * SETSCREW: SAME AS A169	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H82
P—O	5355-284-5177	A172 D KNOB: SAME AS A168	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	T2.1	A2A1MP4
P—O	5305-719-5349	A173 * SETSCREW: SAME AS A169	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H83
P—O	5355-284-5177	A174 D KNOB: SAME AS A168	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	T2.1	A2A1MP5
P—O	5305-719-5349	A175 * SETSCREW: SAME AS A169	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H84

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P—O	6240-155-8706	A176 D LAMP, INCANDESCENT: MS15571-2; (96906)		EA	1	*	1	2	*	1	1	19	10	72.1	A2A1DS301
M—D		A177 D LEAD, ELECTRICAL: SMD446823; (80063)		EA	1										A2A1W4
M—D		A178 E LEAD, ELECTRICAL: SMD446824; (80063)		EA	1										A2A1W4W1
M—D		A179 D LEAD, ELECTRICAL: SMD446848; (80063)		EA	1										A2A1W5
M—D		A180 E BRAID, WIRE: SMD446848-2; (80063)		EA	1										A2A1W5W1
M—D		A181 D LEAD, ELECTRICAL: SAME AS A179		EA	1										A2A1W6
M—D		A182 E BRAID, WIRE: SAME AS A180		EA	1										A2A1W6W1
M—D		A183 D LEAD, ELECTRICAL: SAME AS A179		EA	1										A2A1W7
M—D		A184 E BRAID, WIRE: SAME AS A180		EA	1										A2A1W7W1
M—D		A185 D LEAD, ELECTRICAL: SAME AS A179		EA	1										A2A1W8
M—D		A186 E BRAID, WIRE: SAME AS A180		EA	1										A2A1W8W1
M—D		A187 D LEAD, ELECTRICAL: SMD338888; (80063)		EA	3										A2A1W9
M—D		A188 D LEAD, ELECTRICAL: SMD338897; (80063)		EA	2										A2A1W10
M—D		A189 D LEAD, ELECTRICAL: SMD338896; (80063)		EA	2										A2A1W11
M—D		A190 D LEAD, ELECTRICAL: SMD338902; (80063)		EA	1										A2A1W12
P—F	6210-635-5423	A191 D LIGHT, INDICATOR: MS90287-10; (96906)		EA	1	*	*	1	*	*	1	8	3	72.1	A2A1XDS301
P—F	6730-475-6061	A192 D METER, AUDIO LEVEL: SMD446817; (80063)		EA	1	*	*	1	*	*	1	8	3	72.1	A2A1M301
X2-F		A193 * NUT, PLAIN, HEXAGON: SAME AS A009		EA	3										A2A1H41
X2-F	5310-579-0079	A194 * WASHER, LOCK: SAME AS A011		EA	3										A2A1H42
P—F		A195 D MOUNT, RESILIENT: SMD446867; (80063)		EA	4	1	1	2	1	1	1	27	15		A2A1A7
P—F		A196 D MOUNT, RESILIENT: SAME AS A195		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1A8
P—F		A197 D MOUNT, RESILIENT: SAME AS A195		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1A9
P—F		A198 D MOUNT, RESILIENT: SAME AS A195		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1A10
X2-F		A199 * NUT, PLAIN, HEXAGON: SAME AS A009		EA	8										A2A1H43
X2-F	5305-206-4861	A200 * SCREW, MACHINE: SAME AS A010		EA	8										A2A1H44

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5310-579-0079	A201 * WASHER, LOCK: SAME AS A011	EA	8										A2A1H45
P--F	5945-950-6433	A202 D RELAY, ARMATURE: SMC446826; (80063)	EA	1	*	*	1	*	*	1	8	3	17	A2A1K301
X2-F		A203 * SCREW, MACHINE: SMD446813-16; (80063)	EA	4										A2A1H46
M--D		A204 * SPACER, SLEEVE: SMB446827; (80063)	EA	4										A2A1H47
P--F	5310-559-0070	A205 * WASHER, LOCK: SAME AS A007	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H48
P--F	5905-113-4854	A206 D RESISTOR, FIXED, COMPOSITION: MS35043-132; (96906)	EA	2	*	1	2	*	1	1	18	9	17	A2A1R308
P--F	5805-113-4854	A207 D RESISTOR, FIXED, COMPOSITION: SAME AS A206	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1R316
P--F	5905-192-3987	A208 D RESISTOR, FIXED, COMPOSITION: SAME AS A130	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1R336
P--F	5905-557-4811	A209 D RESISTOR, VARIABLE: RV4NAXSD504D; (81349)	EA	4	1	1	2	1	1	1	27	15	17	A2A1R301
P--F	5905-557-4811	A210 D RESISTOR, VARIABLE: SAME AS A209	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1R302
P--F	5905-557-4811	A211 D RESISTOR, VARIABLE: SAME AS A209	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1R303
P--F	5905-557-4811	A212 D RESISTOR, VARIABLE: SAME AS A209	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1R304
X2-F		A213 * NUT, PLAIN, HEXAGON: SAME AS A166	EA	4										A2A1H49
X2-F		A214 * WASHER, LOCK: SAME AS A167	EA	4										A2A1H50
P--F	5905-473-2466	A215 D RESISTOR, VARIABLE: SMB338912; (80063)	EA	1	*	*	1	*	*	1	8	3	72.1	A2A1R305
X2-F		A216 * NUT, PLAIN, HEXAGON: SAME AS A166	EA	2									72.1	A2A1H51
X2-F		A217 * WASHER, LOCK: SAME AS A167	EA	1										A2A1H52
P--F	5905-681-8690	A218 D RESISTOR, VARIABLE: RV4LAXSA502A; (81349)	EA	1	*	*	1	*	*	1	8	3	72.1	A2A1R306
P--F	5905-577-6617	A219 D RESISTOR, VARIABLE: RV4LAXSA503C; (81349)	EA	1	*	*	1	*	*	1	8	3	72.1	A2A1R307
P--O	5960-264-3004	A220 D SHIELD, ELECTRON TUBE: TS103U02; (81349)	EA	5	1	1	2	1	1	1	27	15	72.1	A2A1E1
P--O	5960-264-3004	A221 D SHIELD, ELECTRON TUBE: SAME AS A220	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1E2
P--O	5960-264-3004	A222 D SHIELD, ELECTRON TUBE: SAME AS A220	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1E3
P--O	5960-264-3004	A223 D SHIELD, ELECTRON TUBE: SAME AS A220	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1E4
P--O	5960-264-3004	A224 D SHIELD, ELECTRON TUBE: SAME AS A220	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1E6
P--O	5960-729-8150	A225 D SHIELD, ELECTRON TUBE: TS102U03; (81349)	EA	1	*	*	*	*	*	*	5	2	72.1	A2A1E5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5935-812-4936	A226 D SOCKET, ELECTRON TUBE: TS103P01; (81349)		EA	5	1	1	2	1	1	1	27	15		A2A1XV301
P--F	5935-812-4936	A227 D SOCKET, ELECTRON TUBE: SAME AS A226		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1XV302
P--F	5935-812-4936	A228 D SOCKET, ELECTRON TUBE: SAME AS A226		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1XV303
P--F	5935-812-4936	A229 D SOCKET, ELECTRON TUBE: SAME AS A226		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1XV304
P--F	5935-812-4936	A230 D SOCKET, ELECTRON TUBE: SAME AS A226		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2A1XV306
P--F	5310-610-0461	A231 * NUT, PLAIN, HEXAGON: AAME AS A023		EA	10	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H53
P--F		A232 * SCREW, MACHINE: MS35223-13; (96906)		EA	10									72.1	A2A1H54
P--F	5310-193-7577	A233 * WASHER, LOCK: SAME AS A026		EA	10	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H55
P--F	5935-260-0516	A234 D SOCKET, ELECTRON TUBE: TS102P01; (81349)		EA	1	1	2	3	1	1	1	33	20		A2A1XV305
P--F	5310-610-0461	A235 * NUT, PLAIN, HEXAGON: SAME AS A023		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H56
P--F		A236 * SCREW, MACHINE: SAME AS A232		EA	2	*	1	1	*	1	1	13	6	72.1	A2A1H57
P--F	5310-193-7577	A237 * WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	72.1	A2A1H58
P--F	5930-950-7535	A238 D SWITCH, LEVER: SMB446818; (80063)		EA	1	*	*	1	*	*	1	8	3	72.1	A2A1S304
X2-F		A239 * SCREW, MACHINE: SMD446813-5; (80063)		EA	4									18	A2A1H59
P--F	5930-552-1009	A240 D SWITCH, PUSH: SMB446845; (80063)		EA	2	*	1	1	*	1	1	13	6	18	A2A1S302
P--F	5930-552-1009	A241 D SWITCH, PUSH: SAME AS A240		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	18	A2A1S303
X2-F		A242 * NUT, PLAIN, HEXAGON: SAME AS A166		EA	4										A2A1H60
X2-F		A243 * WASHER, LOCK: SAME AS A167		EA	4										A2A1H61
P--F	5930-259-8233	A244 D SWITCH, SLIDE: SMB446821; (80063)		EA	1	*	*	1	*	*	1	8	3	72.1	A2A1S305
X2-F		A245 * NUT, PLAIN, HEXAGON: SAME AS A009		EA	2										A2A1H62
X2-F	5305-208-4861	A246 * SCREW, MACHINE: SAME AS A010		EA	2										A2A1H63
X2-F	5310-579-0079	A247 * WASHER, LOCK: SAME AS A011		EA	2										A2A1H64
P--F	5930-655-1514	A248 D SWITCH, TOGGLE: MS35058-22; (96906)		EA	1	*	1	1	*	1	1	13	6	18	A2A1S301
X2-F		A249 D TERMINAL, STUD: SMB446822; (80063)		EA	4									72.2	A2A1E9
X2-F		A250 D TERMINAL, STUD: SAME AS A249		EA	REF										A2A1E10

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		A251 D TERMINAL, STUD: SAME AS A249	EA	REF										A2A1E11
X2-F		A252 D TERMINAL, STUD: SAME AS A249	EA	REF										A2A1E12
P--F	5310-208-2480	A253 * NUT, SELF-LOCKING, HEXAGON: MS20365D6324; (96906)	EA	4	1	3	5	1	1	1	46	30		A2A1H68
P--F	5310-559-0070	A254 * WASHER, LOCK: SAME AS A007	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H69
P--F	5950-973-1390	A255 D TRANSFORMER, AUDIO FREQUENCY: SMB446816; (80063)	EA	2	*	1	1	*	1	1	13	6	72.1	A2A1T301
P--F	5950-973-1390	A256 D TRANSFORMER, AUDIO FREQUENCY: SAME AS A255	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	18	A2A1T302
X2-F		A257 * NUT, PLAIN, HEXAGON: SAME AS A009	EA	4										A2A1H70
X2-F	5310-579-0079	A258 * WASHER, LOCK: SAME AS A011	EA	4										A2A1H71
P--F	5950-951-0673	A259 D TRANSFORMER, AUDIO FREQUENCY: SMB446831; (80063)	EA	1	*	*	1	*	*	1	8	3	17	A2A1T303
X2-F		A260 * NUT, PLAIN, HEXAGON: SAME AS A009	EA	2										A2A1H72
X2-F	5305-208-4861	A261 * SCREW, MACHINE: SAME AS A010	EA	2										A2A1H73
X2-F	5310-579-0079	A262 * WASHER, LOCK: SAME AS A011	EA	2										A2A1H74
P--F	5950-950-7547	A263 D TRANSFORMER, POWER, GSW AND SU: SMC446856; (80063)	EA	1	*	*	1	*	*	1	8	3	17	A2A1T304
X2-F	5310-934-9757	A264 * NUT, PLAIN, HEXAGON: SAME AS A074	EA	4										A2A1H75
X2-F	5305-984-6191	A265 * SCREW, MACHINE: SAME AS A075	EA	4										A2A1H76
P--F	5310-559-0070	A266 * WASHER, LOCK: SAME AS A007	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		A2A1H77
P--F	5950-977-5633	A267 D TRANSFORMER ASSY, RADIO FREQUENCY: SMB446828; (80063)	EA	1	*	1	1	*	1	1	12	5	17	A2A1A11
X2-F		A268 * NUT, PLAIN, HEXAGON: SAME AS A009	EA	4										A2A1H78
X2-F	5310-579-0079	A269 * WASHER, LOCK: SAME AS A011	EA	4										A2A1H79
P--F	5910-556-9816	A270 E CAPACITOR, FIXED, MICA DIEL: CM20B751J; (81349)	EA	1	*	*	1	*	*	1	8	3	17	A2A1A11C308
P--F	5910-060-9619	A271 E CAPACITOR, FIXED, MICA DIEL: CM15F511G03; (81349)	EA	2	*	1	1	*	1	1	13	6	17	A2A1A11C325
P--F	5910-060-9619	A272 E CAPACITOR, FIXED, MICA DIEL: SAME AS A271	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	17	A2A1A11C326
P--F	5950-133-8947	A273 E TRANSFORMER, RADIO FREQUENCY: SMB446830; (80063)	EA	1	*	*	1	*	*	1	8	3	17	A2A1A11L301
X2-F		A274 D WASHER, FLAT: SMB446856; (80063)	EA	4									72.2	A2A1MP6
X2-F		A275 D WASHER, FLAT: SAME AS A274	EA	REF										A2A1MP7

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		A276 D WASHER, FLAT: SAME AS A274	EA	REF										A2A1MP8
X2-F		A277 D WASHER, FLAT: SAME AS A274	EA	REF										A2A1MP9
P-O	6730-832-4771	A278 C CABLE ASSEMBLY, RADIO FREQUENCY: SMC446805; (80063)	EA	1	*	*	1	*	*	1	8	3	9	A2W601
P-O	5340-141-6944	A279 D BUSHING, RUBBER: MS39056-4; (96906)	EA	2	*	1	1	*	1	1	13	6	9	A2W601MP1
P-O	5340-141-6944	A280 D BUSHING, RUBBER: SAME AS A279	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	9	A2W601MP2
P-O	5340-820-4535	A281 D BUSHING, RUBBER: MS39056-3; (96906)	EA	2	*	1	1	*	1	1	13	6	9	A2W601MP3
P-O	5340-820-4535	A282 D BUSHING, RUBBER: SAME AS A281	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	9	A2W601MP4
P-O		A283 D CABLE, RADIO FREQUENCY: SMC446805-1; (80063)	EA	1	*	*	1	*	*	1	8	3	9	A2W6C1W1
P-O	5935-199-3368	A284 D CONNECTOR, PLUG, ELECTRICAL: SMD446863; (80063)	EA	1	*	*	1	*	*	1	8	3	9	A2W601P602
P-O	5935-892-9109	A285 D CONNECTOR, PLUG, ELECTRICAL: SMD446864; (80063)	EA	1	*	*	1	*	*	1	8	3	9	A2W601P601
P-O	5995-963-6318	A286 C CABLE ASSEMBLY, RADIO FREQUENCY: SMC446860; (80063)	EA	1	*	*	1	*	*	1	8	3		A2W2
M-D		A287 D CABLE, RADIO FREQUENCY: SMC446860-1; (80063)	EA	1	*	*	1	*	*	1	8	3		A2W2W1
P-O	5935-805-4836	A288 D CONNECTOR, PLUG, ELECTRICAL: SMB339132; (80063)	EA	2	*	1	2	*	1	1	18	9		A2W2P1
P-O	5935-805-4836	A289 D CONNECTOR, PLUG, ELECTRICAL: SAME AS A288	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A2W2P2
MD-O		A290 D INSULATION, SLEEVING, ELECTRICAL: SMB339141; (80063)	EA	2										A2W2E1
MD-O		A291 D INSULATION, SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A2W2E2
P-O	6730-832-4774	A292 C CABLE ASSY, SP, ELEC, BRANCHED: SMC446804; (80063)	EA	1	*	*	1	*	*	1	8	3	9	A2W701
X1-O		A293 D CABLE, SP, ELEC, BRANCHED: SMC446804-1; (80063)	EA	1										A2W701W1
P-O	5935-805-4836	A294 D CONNECTOR, PLUG, ELECTRICAL: SAME AS A288	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	9	A2W701P701
P-O	5935-617-7664	A295 D CONNECTOR, PLUG, ELECTRICAL: SMD446862; (80063)	EA	2	*	1	1	*	1	1	13	6	9	A2W701P702
P-O	5935-617-7664	A296 D CONNECTOR, PLUG, ELECTRICAL: SAME AS A295	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	9	A2W701P703
X2-D		A297 C CASE, AMPLIFIER: SMD446806; (80063)	EA	1										A2A2
P-O		A298 D BUMPER, RUBBER: SMD446806-1; (80063)	EA	1	*	1	2	*	1	1	18	9	72	A2A2A1
P-O	5310-208-2480	A299 * NUT, SELF-LOCKING, HEXAGON: SAME AS A253	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2H1
P-O		A300 D BUMPER, RUBBER: SAME AS A298	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2A2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--O		A301 D BUMPER, RUBBER: SAME AS A298	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2A3
P--O	5310-934-9757	A302 * NUT, PLAIN, HEXAGON: SAME AS A074	EA	2	1	1	2	1	1	1	27	15	72	A2A2H2
P--O	5310-559-0070	A303 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2H3
P--O		A304 D BUMPER, RUBBER: SMD446806-2; (80063)	EA	2	*	1	1	*	1	1	13	6	72	A2A2A4
P--O		A305 D BUMPER, RUBBER: SAME AS A304	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2A5
P--O	5310-934-9757	A306 * NUT, PLAIN, HEXAGON: SAME AS A074	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A2A2H4
P--O	5310-559-0070	A307 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A2A2H5
X2-F		A308 D CASE, AMPLIFIER: SMC446810; (80063)	EA	1									72	A2A2A6
P--H	5910-451-2314	A309 D CATCH, CLAMPING: SMB339028; (80063)	EA	2				*	1	1	18	9		A2A2H6
P--H		A310 * RIVET, TUBULAR: MS20450C9B10; (96906)	EA	6				1	1	1	53	35		A2A2H7
X2-F		A311 D COVER, AMPLIFIER: SMC446807; (80063)	EA	1									72	A2A2A7
M--D		A312 E HOLDER, CABLE: SMB446808; (80063)	EA	4									72	A2A2ATMP1
M--D		A313 E HOLDER, CABLE: SAME AS A312	EA	REF									72	A2A2ATMP2
M--D		A314 E HOLDER, CABLE: SAME AS A312	EA	REF									72	A2A2ATMP3
M--D		A315 E HOLDER, CABLE: SAME AS A312	EA	REF									72	A2A2ATMP4
P--H		A316 * RIVET, TUBULAR: SMC446807-1; (80063)	EA	8				1	1	1	40	25	72	A2A2ATH1
P--F	6730-696-2717	A317 D HANDLE, LUGGAGE: SMB338820; (80063)	EA	1	*	1	1	*	1	1	13	6	72	A2A2MP1
P--F	5310-208-2480	A318 * NUT, SELF-LOCKING, HEXAGON: SAME AS A253	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	72	A2A2H9
X2-F		A319 * PIN, STRAIGHT, HEADLESS: SMB338815; (80063)	EA	2									72	A2A2H10
X2-F		A320 * POST, ELECTRICAL MECHANICAL EQPT: SMB338816; (80063)	EA	4									72	A2A2H11
X2-F		A321 * SPRING, HELICAL, TORSION: SMB338818; (80063)	EA	2									72	A2A2H12
P--H	6730-706-7608	A322 D STRIKE, CATCH: SMB338829; (80063)	EA	2				*	1	1	18	9		A2A2H8
P--H		A323 * RIVET, TUBULAR: SAME AS A310	EA	6				REF	REF	REF	REF	REF		A2A2H13
P--O	6730-086-6721	A324 C COVER, PROTECTIVE, AMPLIFIER: SMD446861; (80063)	EA	1	*	*	1	*	*	1	8	3		A2A3
P--O	5965-892-3893	A325 C HEADSET, ELECTRICAL: SMC446859; (80063)	EA	1	*	*	1	*	*	1	8	3		A2HT1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P—O	5965-280-3770	A326 C MICROPHONE, DYNAMIC: SMD446850; (80063)	EA	1	*	*	1	*	*	1	8	3		A2MK1
M—D		A327 C PLATE, IDENTIFICATION: SMD446802; (80063)	EA	1									72	A2MP1
X2-F	5310-934-9747	A328 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	4									72	A2H4
X2-F	5305-984-4988	A329 * SCREW, MACHINE: MS35206-228; (96906)	EA	4									72	A2H5
X2-F	5310-579-0079	A330 * WASHER, FLAT: SAME AS A011	EA	4									72	A2H6
D—O-B	6730-889-3393	A331 B PROJECTION, MOTION PICUTRE, SOUND: SMD446604; (80063)	EA	1										A3
A—O-B		A332 C AMPLIFIER ASSEMBLY: SMD359123; (80063)	EA	1									53	A3A1
P—F	5305-984-6191	A333 * SCREW, MACHINE: MS35206-43; (96906)	EA	6	1	3	5	1	1	1	46	30	24	A3H1
P—F	5310-559-0070	A334 * WASHER, LOCK: SAME AS A007	EA	6	REF	REF	REF	REF	REF	REF	REF	REF	24	A3H2
M—D		A335 D BRACKET, ANGLE: SMB338950; (80063)	EA	2									53.1	A3A1MP1
M—D		A336 D BRACKET, ANGLE: SAME AS A335	EA	REF									53.1	A3A1MP2
X2-F		A337 * NUT, PLAIN, HEXAGON: SMD359123-8; (80063)	EA	2										A3A1H1
X2-F	5310-934-9747	A338 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	2										A3A1H2
X2-F	5305-206-0513	A339 * SCREW, MACHINE: AN515-6-5; (88044)	EA	4										A3A1H3
X2-F	5310-579-0079	A340 * WASHER, LOCK: SAME AS A011	EA	4										A3A1H4
P—F	6730-729-9400	A341 D CABLE ASSEMBLY, POWER, ELEC: SMB338964; (80063)	EA	1	*	*	1	*	*	1	8	3	11	A3A1W201
P—F		A342 * NUT, PLAIN, HEXAGON: SMD359123-7; (80063)	EA	1	2	4	7	1	1	2	83	60	53.2	A3A1H5
P—F		A343 * SCREW, MACHINE: SMD359123-13; (88044)	EA	1									53.2	A3A1H6
P—F	5975-825-3330	A344 * TIE, CABLE: SMB359092; (80063)	EA	1	*	1	1	*	1	1	13	6	53.2	A3A1H7
P—F	5310-193-7577	A345 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	53.2	A3A1H8
MD-O		A346 D CABLE ASSEMBLY, RADIO FREQUENCY: SMB446720; (80063)	EA	1									53.2	A3A1W1
P—F	5910-509-1154	A347 D CAPACITOR, FIXED, CERAMIC DIEL: SMB338979; (80063)	EA	3	*	1	2	*	1	1	18	9	10	A3A1C220
P—F	5910-509-1154	A348 D CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A347	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1C221
P—F	5910-509-1154	A349 D CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A347	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1C222
P—F	5310-550-1130	A350 * WASHER, LOCK: MS35333-40; (96906)	EA	3	1	2	3	1	1	1	33	20	53.1	A3A1H9

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5910-577-3064	A351 D CAPACITOR, FIXED, ELECTROLYTIC: SMD359123-16; (80063)	EA	2	*	1	1	*	1	1	13	6	11	A3A1C214
P--F	5910-577-3064	A352 D CAPACITOR, FIXED, ELECTROLYTIC: SAME AS A351	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	11	A3A1C216
P--F	5910-769-5130	A353 D CAPACITOR, FIXED, ELECTROLYTIC: SMB338980; (80063)	EA	1	*	*	1	*	*	1	8	3	11	A3A1C224
P--F		A354 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1H10
P--F		A355 * SCREW, MACHINE: SMD359123-11; (80063)	EA	1									53.1	A3A1H11
P--F	5310-193-7577	A356 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1H12
P--F	5910-451-2316	A357 D CAPACITOR, FIXED, PAPER DIEL: SMD359123-15; (80063)	EA	1	*	*	1	*	*	1	8	3	10	A3A1C219
X2-F		A358 D CASE, ELECTRICAL EQUIPMENT, CAB: SMD338962; (80063)	EA	1										A3A1MP3
X2-F	5310-934-9747	A359 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	3										A3A1H13
P--F	5305-514-8004	A360 * SCREW, MACHINE: AN505-6-8; (88044)	EA	1	*	1	2	*	1	1	18	9		A3A1H14
X2-F	5310-579-0079	A361 * WASHER, LOCK: SAME AS A011	EA	3										A3A1H15
P--F	5305-144-3913	A362 * SCREW, MACHINE: AN526-632R6; (88044)	EA	2	2	3	6	1	1	2	65	45		A3A1H73
X2-O		A363 D CASE, LOUD SPEAKER: SMC338961; (80063)	EA	1									53	A3A1MP4
P--O	5305-144-3913	A364 * SCREW, MACHINE: SAME AS A362	EA	6	REF	REF	REF	REF	REF	REF	REF	REF	53	A3A1H16
P--O	5310-579-0079	A365 * WASHER, LOCK: SAME AS A011	EA	6	1	2	3	1	1	1	33	20	53	A3A1H17
X2-F		A366 D CHASSIS, ELECTRICAL EQUIPMENT: SMC338915; (80063)	EA	1										A3A1MP5
X2-F		A367 E CHASSIS, ELECTRICAL EQUIPMENT: SMD595200; (80063)	EA	1										A3A1A1
X2-F		A368 F CHASSIS, ELECTRICAL EQUIPMENT: SMC595203; (80063)	EA	1										A3A1A1A1
P--F	5305-984-4983	A369 * SCREW, MACHINE: MS35225-26; (96906)	EA	7	1	2	3	1	1	1	33	20		A3A1A1H1
X2-F	5310-579-0079	A370 * WASHER, LOCK: SAME AS A011	EA	7										A3A1A1H2
P--H		A371 F LOCKSPRING, TURNLOCK FASTENER: SMD595200-2; (80063)	EA	3				*	1	1	18	9		A3A1A1MP1
P--H		A372 F LOCKSPRING, TURNLOCK FASTENER: SAME AS A371	EA	REF				REF	REF	REF	REF	REF		A3A1A1MP2
P--H		A373 F LOCKSPRING, TURNLOCK, FASTENER: SAME AS A371	EA	REF				REF	REF	REF	REF	REF		A3A1A1MP3
P--H		A374 * RIVET, TUBULAR: SMD595200-1; (80063)	EA	6				1	1	1	33	20		A3A1A1H3
M--D		A375 F SPRING, FLAT: SMB338946; (80063)	EA	1										A3A1A1MP4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--H	5320-952-0566	A376 • RIVET, TUBULAR: MS16535-113; (96906)	EA	2				•	1	1	13	6		A3A1A1H4
P--F	6730-330-0189	A377 D CONNECTOR, RECEPTACLE, ELEC: SMB338971; (80063)	EA	1	•	•	1	•	•	1	8	3	10	A3A1J204
P--F		A378 • NUT, PLAIN, HEXAGON: SAME AS A342	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H24
X2-F		A379 • SCREW, MACHINE: SAME AS A355	EA	1										A3A1H25
P--F	5310-193-7577	A380 • WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H26
P--F	5935-825-4196	A381 D CONNECTOR, RECEPTACLE, ELEC: SAME AS A054	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	53.2	A3A1J203
P--F		A382 • NUT, PLAIN, HEXAGON: SAME AS A342	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H27
P--F		A383 • SCREW, MACHINE: SMD359123-10; (80063)	EA	3	•	1	2	•	1	1	18	9	53.2	A3A1H28
P--F	5310-193-7577	A384 • WASHER, LOCK: SAME AS A026	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	53.2	A3A1H29
P--F	6730-341-7867	A385 D CONTROL ROD: SMB338956; (80063)	EA	2	•	1	1	•	1	1	13	6	53.1	A3A1MP9
P--F	6730-341-7867	A386 D CONTROL ROD: SAME AS A385	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1MP10
P--F	5305-206-0170	A387 • SETSCREW: AN565D6L2; (88044)	EA	4	•	1	2	•	1	1	33	20	53.1	A3A1H70
P--O	5960-166-7664	A388 D ELECTRON TUBE: SMD359123-4; (80063)	EA	3	1	3	5	1	1	1	46	30	10	A3A1V201
P--O	5960-166-7664	A389 D ELECTRON TUBE: SAME AS A388	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1V202
P--O	5960-166-7664	A390 D ELECTRON TUBE: SAME AS A388	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A1V1
P--O	5960-452-8501	A391 D ELECTRON TUBE: SMD359123-5; (80063)	EA	4	2	3	6	1	1	2	59	40	10	A3A1V203
P--O	5960-452-8501	A392 D ELECTRON TUBE: SAME AS A391	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1V204
P--O	5960-452-8501	A393 D ELECTRON TUBE: SAME AS A391	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1V205
P--O	5960-452-8501	A394 D ELECTRON TUBE: SAME AS A391	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A1V2
P--O	5960-272-9182	A395 D ELECTRON TUBE: SMD359123-6; (80063)	EA	3	1	3	5	1	1	1	46	30	10	A3A1V206
P- O	5960-272-9182	A396 D ELECTRON TUBE: SAME AS A395	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	11	A3A1V207
P--O	5960-272-9182	A397 D ELECTRON TUBE: SAME AS A395	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A1V3
A--F		A398 D ELECTRONIC COMPONENTS ASSEMBLY: SMD359124; (80063)	EA	1									53.1	A3A1A2
P--F	5310-081-8087	A399 • NUT, SELF-LOCKING, HEXAGON: MS21044N06; (96906)	EA	3	1	3	5	1	1	1	46	30		A3A1H71
P--F	5305-889-3001	A400 • SCREW, MACHINE: MS35206-231; (96906)	EA	3	•	1	2	•	1	1	18	9	53.1	A3A1H72

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5910-451-2312	A401 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C208
P--F	5910-451-2312	A402 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C206
P--F	5910-823-1068	A403 E CAPACITOR, FIXED, CERAMIC DIEL: SMD359124-6; (80063)	EA	4	1	1	2	1	1	1	27	15	13	A3A1A2C203
P--F	5910-823-1068	A404 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A403	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C202
P--F	5910-823-1068	A405 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A403	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C211
P--F	5910-823-1068	A406 E CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A403	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C207
P--F	5910-101-4014	A407 E CAPACITOR, FIXED, MICA DIEL: CM30E102J; (81349)	EA	1	*	*	1	*	*	1	8	3	13	A3A1A2C209
P--F	5910-451-2317	A408 E CAPACITOR, FIXED, MICA DIEL: SMD359124-2; (80063)	EA	1	*	*	1	*	*	1	8	3	13	A3A1A2C210
P--F	5910-129-6242	A409 E CAPACITOR, FIXED, MICA DIEL: CM15F101J03; (81349)	EA	1	*	*	1	*	*	1	8	3	13	A3A1A2C205
P--F	5910-451-2318	A410 E CAPACITOR, FIXED, MICA DIEL: SMD359124-4; (80063)	EA	2	*	1	1	*	1	1	13	6	13	A3A1A2C204
P--F		A411 E CAPACITOR, FIXED, MICA DIEL: SAME AS A410	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C223
P--F	5910-892-7875	A412 E CAPACITOR, FIXED, PAPER DIEL: SMD359124-5; (80063)	EA	2	*	1	1	*	1	1	13	6	13	A3A1A2C212
P--F	5910-892-7875	A413 E CAPACITOR, FIXED, PAPER DIEL: SAME AS A412	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2C213
M--D		A414 E LEAD, ELECTRICAL: SMB338940; (80063)	EA	1										A3A1A2W1
M--D		A415 E LEAD, ELECTRICAL: SMC338941; (80063)	EA	1										A3A1A2W2
P--F	5905-245-0023	A416 E RESISTOR, FIXED, COMPOSITION: MS35043-18; (96906)	EA	1	*	*	1	*	*	1	8	3	13	A3A1A2R214
P--F	5905-185-8518	A417 E RESISTOR, FIXED, COMPOSITION: SAME AS A148	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R205
P--F	5905-185-8518	A418 E RESISTOR, FIXED, COMPOSITION: SAME AS A148	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R225
P--F	5905-185-8518	A419 E RESISTOR, FIXED, COMPOSITION: SAME AS A148	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R226
P--F	5905-185-8518	A420 E RESISTOR, FIXED, COMPOSITION: SAME AS A148	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R236
P--F	5905-141-0596	A421 E RESISTOR, FIXED, COMPOSITION: SAME AS A134	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R206
P--F	5905-295-3409	A422 E RESISTOR, FIXED, COMPOSITION: SAME AS A122	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R224
P--F	5905-192-3982	A423 E RESISOTR, FIXED, COMPOSITION: SAME AS A120	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R207
P--F	5905-192-3982	A424 E RESISTOR, FIXED, COMPOSITION: SAME AS A120	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R210
P--F	5905-106-9347	A425 E RESISTOR, FIXED, COMPOSITION: MS35043-34; (96906)	EA	1	*	*	1	*	*	1	8	3	13	A3A1A2R212

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
		REFERENCE NUMBER & MFR. CODE USABLE ON CODE			(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5905-113-4854	A426 E RESISTOR, FIXED, COMPOSITION: SAME AS A206	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R222
P--F	5905-116-8557	A427 E RESISTOR, FIXED, COMPOSITION: MS35043-136; (96906)	EA	2	•	1	1	•	1	1	13	6	13	A3A1A2R220
P--F	5905-116-8557	A428 E RESISTOR, FIXED, COMPOSITION: SAME AS A427	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R221
P--F	5905-116-8560	A429 E RESISTOR, FIXED, COMPOSITION: MS35043-142; (96906)	EA	3	1	1	2	1	1	1	27	15	13	A3A1A2R201
P--F	5905-116-8560	A430 E RESISTOR, FIXED, COMPOSITION: SAME AS A429	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R218
P--F	5905-116-8560	A431 E RESISTOR, FIXED, COMPOSITION: SAME AS A429	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R219
P--F	5905-171-1985	A432 E RESISTOR, FIXED, COMPOSITION: SAME AS A136	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R211
P--F	5905-114-5441	A433 E RESISTOR, FIXED, COMPOSITION: MS35043-214; (96906)	EA	1	•	•	1	•	•	1	8	3	13	A3A1A2R204
P--F	5905-141-1116	A434 E RESISTOR, FIXED, COMPOSITION: SAME AS A146	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R208
P--F	5905-141-1116	A435 E RESISTOR, FIXED, COMPOSITION: SAME AS A146	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R217
P--F	5905-141-1073	A436 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A2R227
P--F	5905-141-1073	A437 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R216
P--F	5905-141-1073	A438 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R215
P--F	5905-141-1073	A439 E RESISTOR, FIXED, COMPOSITION: SAME AS A080	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R209
P--F	5905-577-9415	A440 E RESISTOR, FIXED, WIRE WOUND: SMD359124-7; (80063)	EA	2	•	1	1	•	1	1	13	6	13	A3A1A2R228
P--F	5905-577-9415	A441 E RESISTOR, FIXED, WIRE WOUND: SAME AS A440	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	13	A3A1A2R240
P--F	6730-938-1695	A442 E TERMINAL BOARD: SMB338943; (80063)	EA	1	•	•	1	•	•	1	8	3		A3A1A2TB201
P--O	5920-284-6733	A443 D FUSE, CARTRIDGE: SAME AS A157	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1F201
P--F	5920-933-4052	A444 D FUSE HOLDER: SMD359123-1; (80063)	EA	1	•	•	1	•	•	1	8	3	10	A3A1XF201
X2-O		A445 D GRILLE, METAL: SMC338927; (80063)	EA	1									53	A3A1A3
X2-F		A446 E GRILLE, METAL: SMC338928; (80063)	EA	1										A3A1A3MP1
P--O	5325-282-8138	A447 • STUD, TURNLOCK FASTENER: SAME AS A160	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	53	A3A1A3H1
M--D		A448 D GRILLE, METAL: SMB338959; (80063)	EA	1									53	A3A1MP11
P--F	5310-081-8087	A449 • NUT, SELF-LOCKING, HEXAGON: SAME AS A399	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	53	A3A1H30
P--F	5305-144-3915	A450 • SCREW, MACHINE: AN526-632R8; (88044)	EA	4	1	1	2	1	1	1	27	15	53	A3A1H31

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--D		A451 D GRILLE, METAL: SMC338963; (80063)		EA	1										A3A1MP12
X2-F	5305-206-0513	A452 • SCREW, MACHINE: SAME AS A339		EA	1										A3A1H32
X2-F	5310-579-0079	A453 • WASHER, LOCK: SAME AS A011		EA	1										A3A1H33
M--D		A454 D GUARD, SWITCH: SMB338958; (80063)		EA	1									53.2	A3A1MP13
P--F	5935-950-9817	A455 D JACK, TELEPHONE: SAME AS A164		EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1J202
P--F		A456 • NUT, PLAIN, HEXAGON: SMD359123-9; (80063)		EA	1	•	1	2	•	1	1	18	9		A3A1H22
P--F	5970-816-0268	A457 • WASHER, SHOULDERED: SMB338975; (80063)		EA	2	•	1	1	•	1	1	13	6		A3A1H23
P--O	5355-284-5131	A458 D KNOB: SMB338951; (80063)		EA	2	•	1	1	•	1	1	13	6	53.1	A3A1MP14
P--O	5355-284-5131	A459 D KNOB: SAME AS A458		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1MP15
P--O	5305-719-5342	A460 • SETSCREW: AN565D8L3; (88044)		EA	2	•	1	2	•	1	1	33	20	53.1	A3A1H34
P--O	6249-169-7057	A461 D LAMP, INCANDESCENT: SMB338969; (80063)		EA	1	•	1	2	•	1	1	19	10	11	A3A1DS201
P--F	6250-431-8659	A462 D LAMPHOLDER: SMB338968; (80063)		EA	1	•	•	1	•	•	1	8	3	11	A3A1XDS201
P--O	5965-284-6708	A463 D LOUDSPEAKER, PERMANENT MAGNET: SMC338955; (80063)		EA	1	•	•	1	•	•	1	8	3	53	A3A1LS201
M--D		A464 D PLATE, DESIGNATION: SMB338947; (80063)		EA	1									53.1	A3A1MP16
M--D		A465 D PLATE, DESIGNATION: SMB338960; (80063)		EA	1									53.2	A3A1MP17
M--D		A466 D PLATE, INSULATION: SMB338949; (80063)		EA	1										A3A1MP18
P--F	5905-454-2806	A467 D RESISTOR, FIXED, COMPOSITION: MS35044-204; (96906)		EA	2	•	1	1	•	1	1	13	6	10	A3A1R238
P--F	5905-454-2806	A468 D RESISTOR, FIXED, COMPOSITION: SAME AS A467		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1R239
P--F	5905-252-4018	A469 D RESISTOR, FIXED, COMPOSITION: RC20GF470J; (81349)		EA	1	•	•	1	•	•	1	8	3	53.1	A3A1R230
P--F		A470 D RESISTOR, FIXED, COMPOSITION: SMD359123-17; (80063)		EA	1	•	•	1	•	•	1	8	3	10	A3A1R241
P--F	5310-081-8087	A471 • NUT, SELF-LOCKING, HEXAGON: SAME AS A399		EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H35
P--F	5305-616-2598	A472 • SCREW, MACHINE: AN515-6-40; (88044)		EA	1	•	•	1	•	•	1	8	3		A3A1H36
P--F		A473 • WASHER, NONMETALLIC: SMB339158; (80063)		EA	2	•	1	1	•	1	1	13	6		A3A1H37
A--F		A474 D RESISTOR ASSEMBLY: SMB338911; (80063)		EA	1									53.2	A3A1A4
M--D		A475 E LEAD, ELECTRICAL: SMB338913; (80063)		EA	2										A3A1A4W1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--D		A476 E LEAD, ELECTRICAL: SAME AS A475	EA	REF										A3A1A4W2
P--F	5905-116-8560	A477 E RESISTOR, FIXED, COMPOSITION: SAME AS A429	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A4R235
P--F		A478 E RESISTOR, VARIABLE: SMB338911-1; (80063)	EA	1	*	*	1	*	*	1	8	3	10	A3A1A4R203
A--F		A479 D RESISTOR ASSEMBLY: SMB338893; (80063)	EA	1									53.1	A3A1A5
M--D		A480 E LEAD, ELECTRICAL: SMB338895; (80063)	EA	1										A3A1A5W1
M--D		A481 E LEAD, ELECTRICAL: SMB338896; (80063)	EA	1										A3A1A5W2
M--D		A482 E LEAD, ELECTRICAL: SAME AS A188	EA	1										A3A1A5W3
M--D		A483 E LEAD, ELECTRICAL: SAME AS A189	EA	1										A3A1A5W4
P--F	5905-175-5477	A484 E RESISTOR, VARIABLE: SMB338894; (80063)	EA	1	*	*	1	*	*	1	8	3	10	A3A1A5R213
P--F	5910-668-3013	A485 D RETAINER, CAPACITOR: SMD359123-3; (80063)	EA	1	*	*	1	*	*	1	8	3		A3A1MP6
P--F		A486 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H18
X2-F		A487 * SCREW, MACHINE: SAME AS A355	EA	1										A3A1H19
P--F	5310-832-8140	A488 * WASHER, FLAT SMB339098; (80063)	EA	1	*	1	2	*	1	1	18	9		A3A1H20
P--F	5310-193-7577	A489 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H21
P--F	5910-543-1200	A490 D RETAINER, CAPACITOR: SMD359123-2; (80063)	EA	2	*	1	1	*	1	1	13	6	53.2	A3A1MP7
P--F	5910-543-1200	A491 D RETAINER, CAPACITOR: SAME AS A490	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.2	A3A1MP8
P--F		A492 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	53.2	A3A1H74
X2-F		A493 * SCREW, MACHINE: SAME AS A355	EA	2									53.2	A3A1H75
P--F	5310-832-8140	A494 * WASHER, FLAT: SAME AS A488	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H76
P--F	5310-193-7577	A495 * WASHER, LOCK: SAME AS A026	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H77
X2-F		A496 D RETAINER, CAPACITOR: SAME AS A040	EA	1									53.2	A3A1MP19
X2-F		A497 * SCREW, MACHINE: AN515-8-12; (88044)	EA	1									53.2	A3A1H38
M--D		A498 D SHIELD, COIL: SMB446721; (80063)	EA	1									53.1	A3A1MP20
P--O	5960-686-8087	A499 D SHIELD, ELECTRON TUBE: MS24233-5; (96906)	EA	2	*	1	1	*	1	1	13	6	53.1	A3A1E1
P--O	5960-686-8087	A500 D SHIELD, ELECTRON TUBE: SAME AS A499	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1E2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P—O	5960-729-8150	A501 D SHIELD, ELECTRON TUBE: MS24233-3; (96906)	EA	5	1	1	2	1	1	1	27	15	53.1	A3A1E3
P—O	5960-729-8150	A502 D SHIELD, ELECTRON TUBE: SAME AS A501	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1E4
P—O	5950-729-8150	A503 D SHIELD, ELECTRON TUBE: SAME AS A501	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1E5
P—O	5960-729-8150	A504 D SHIELD, ELECTRON TUBE: SAME AS A501	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1E6
P—O	5960-729-8150	A505 D SHIELD, ELECTRON TUBE: SAME AS A501	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1E7
A—F		A506 D SOCKET ASSEMBLY, ELECTRON TUBE: SMB446715; (80063)	EA	1									53.2	A3A1A6
X2-F	5305-206-0513	A507 * SCREW, MACHINE: SAME AS A339	EA	2										A3A1H39
X2-F	5310-579-0079	A508 * WASHER, LOCK: SAME AS A011	EA	2										A3A1H40
H—D		A509 E CABLE ASSEMBLY, RADIO FREQUENCY: SMB446622; (80063)	EA	1										A3A1A6W1
H—D		A510 E CABLE ASSEMBLY, RADIO FREQUENCY: SMB446727; (80063)	EA	1										A3A1A6W2
H—D		A511 E LEAD, ELECTRICAL: SMB338931; (80063)	EA	2										A3A1A6W3
H—D		A512 E LEAD, ELECTRICAL SMB446725; (80063)	EA	1										A3A1A6W4
P—F	5905-192-3982	A513 E RESISTOR, FIXED, COMPOSITION: SAME AS A120	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A6R237
P—F	3610-353-3874	A514 E SOCKET, ELECTRON TUBE: SMB446715-1; (80063)	EA	1	*	*	1	*	*	1	8	3	11	A3A1A6J205
P—F	5935-260-0516	A515 D SOCKET, ELECTRON TUBE: SAME AS A234	EA	5	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV203
P—F	5935-260-0516	A516 D SOCKET, ELECTRON TUBE: SAME AS A234	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV204
P—F	5935-260-0516	A517 D SOCKET, ELECTRON TUBE: SAME AS A234	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV205
P—F	5935-260-0516	A518 D SOCKET, ELECTRON TUBE: SAME AS A234	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV206
P—F	5935-260-0516	A519 D SOCKET, ELECTRON TUBE: SAME AS A234	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV207
P—F		A520 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	10	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H41
P—F		A521 * SCREW, MACHINE: SAME AS A355	EA	10	1	3	5	1	1	1	46	30		A3A1H42
P—F	5310-193-7577	A522 * WASHER, LOCK: SAME AS A026	EA	10	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1H43
P—F	5935-063-5789	A523 D SOCKET, ELECTRON TUBE: TS101P01; (81349)	EA	2	*	1	2	*	1	1	18	9	10	A3A1XC214
P—F	5935-063-5789	A524 D SOCKET, ELECTRON TUBE: SAME AS A523	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XC216
X2-F		A525 * NUT, PLAIN, HEXAGON: SAME AS A337	EA	4										A3A1H44

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5305-206-0513	A526 * SCREW, MACHINE: SAME AS A339	EA	4										A3A1H45
X2-F	5310-579-0079	A527 * WASHER, LOCK: SAME AS A011	EA	4										A3A1H46
P--F	5935-812-4936	A528 D SOCKET, ELECTRON TUBE: SAME AS A226	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV201
P--F	5935-812-4936	A529 D SOCKET, ELECTRON TUBE: SAME AS A226	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1XV202
X2-F		A530 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	4										A3A1H47
X2-F		A531 * SCREW, MACHINE: SAME AS A355	EA	4										A3A1H48
P--F	5310-193-7577	A532 * WASHER, LOCK: SAME AS A026	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H49
M--D		A533 D SPACER, PLATE: SMB338948; (80063)	EA	8										A3A1MP21
M--D		A534 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP22
M--D		A535 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP23
M--D		A536 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP24
M--D		A537 D SPACER, PLATE SAME AS A533	EA	REF										A3A1MP25
M--D		A538 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP26
M--D		A539 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP27
M--D		A540 D SPACER, PLATE: SAME AS A533	EA	REF										A3A1MP28
M--D		A541 D SPACER, SLEEVE: SMB338957; (80063)	EA	3									53.1	A3A1MP29
M--D		A542 D SPACER, SLEEVE: SAME AS A541	EA	REF									53.1	A3A1MP30
M--D		A543 D SPACER, SLEEVE: SAME AS A541	EA	REF									53.1	A3A1MP31
P--O		A544 D STRAP, RETAINING: SMB338953; (80063)	EA	1	*	*	1	*	*	1	8	3	53	A3A1MP32
P--O	5310-934-9747	A545 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	1	*	*	1	*	*	1	8	3		A3A1H50
P--O	5305-206-0513	A546 * SCREW, MACHINE: SAME AS A339	EA	1	*	*	1	*	*	1	8	3		A3A1H51
P--O	5310-579-0079	A547 * WASHER, LOCK: SAME AS A011	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	53	A3A1H52
P--F	6760-345-0569	A548 D SWITCH ASSEMBLY, ROTARY: SMB338877; (80063)	EA	1	*	*	1	*	*	1	8	3	53.1	A3A1A7
P--F		A549 * NUT, PLAIN, HEXAGON: SAME AS A456	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1H53
X2-F		A550 * WASHER, FLAT: SMB338976; (80063)	EA	2									53.1	A3A1H54

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5310-595-7237	A551 * WASHER, LOCK: MS35333-42; (96906)	EA	2									53.1	A3A1H55
P--F	5910-666-6787	A552 E CAPACITOR, FIXED, CERAMIC DIEL: SMB338877-3; (80063)	EA	1	*	*	1	*	*	1	8	3		A3A1A7C225
M--D		A553 E LEAD, ELECTRICAL: SMB338880; (80063)	EA	4										A3A1A7W1
M--D		A554 E LEAD, ELECTRICAL: SAME AS A553	EA	REF										A3A1A7W2
M--D		A555 E LEAD, ELECTRICAL: SAME AS A553	EA	REF										A3A1A7W3
M--D		A556 E LEAD, ELECTRICAL: SAME AS A553	EA	REF										A3A1A7W4
M--D		A557 E LEAD, ELECTRICAL: SMB338881; (80063)	EA	1										A3A1A7W5
M--D		A558 E LEAD, ELECTRICAL: SMB338882; (80063)	EA	1										A3A1A7W6
M--D		A559 E LEAD, ELECTRICAL: SMB338883; (80063)	EA	1										A3A1A7W7
P--F	5905-279-1866	A560 E RESISTOR, FIXED, COMPOSITION: SAME AS A133	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A7R232
P--F	5905-279-1866	A561 E RESISTOR, FIXED, COMPOSITION: SAME AS A133	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A7R233
P--F	5905-279-1866	A562 E RESISTOR, FIXED, COMPOSITION: SAME AS A133	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A1A7R234
P--F	5930-642-9292	A563 E SWITCH, ROTARY: SMB338878; (80063)	EA	1	*	*	1	*	*	1	8	3	10	A3A1A7S201
P--F	5930-655-1514	A564 D SWITCH, TOGGLE: SAME AS A248	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	11	A3A1S202
P--F	5930-655-1515	A565 D SWITCH, TOGGLE: MS35058-23; (96906)	EA	1	*	*	1	*	*	1	8	3	11	A3A1S203
A--F		A566 D TRANSFORMER ASSEMBLY, AUDIO FREQ: SMC338899; (80063)	EA	1										A3A1A8
X2-F	5310-934-9757	A567 * NUT, PLAIN, HEXAGON: SAME AS A074	EA	2									53.2	A3A1H58
P--F		A568 * NUT, PLAIN, HEXAGON: SAME AS A342	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H59
X2-F	5305-984-6191	A569 * SCREW, MACHINE: SAME AS A075	EA	2										A3A1H60
P--F		A570 * SCREW, MACHINE: SAME AS A343	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H61
P--F	5975-825-3330	A571 * TIE, CABLE: SAME AS A344	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H62
P--F	5975-713-5091	A572 * TIE, CABLE: SMD359123-14; (80063)	EA	1	*	*	1	*	*	1	8	3		A3A1H63
P--F	5310-559-0070	A573 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	53.1	A3A1H64
P--F	5310-193-7577	A574 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H65
M--D		A575 E CABLE ASSEMBLY, RADIO FREQUENCY: SMD338909; (80063)	EA	1										A3A1A8W1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
M--D		A576 CABLE ASSEMBLY, RADIO FREQUENCY: SMB338910; (80063)	F	EA	1										A3A1A8W1W1
M--D		A577 LEAD, ELECTRICAL: SAME AS A189	E	EA	1										A3A1A8W2
M--D		A578 LEAD, ELECTRICAL: SMB338901; (80063)	E	EA	1										A3A1A8W3
M--D		A579 LEAD, ELECTRICAL: SAME AS A190	E	EA	1										A3A1A8W4
M--D		A580 LEAD, ELECTRICAL: SMB338903; (80063)	E	EA	1										A3A1A8W5
M--D		A581 LEAD, ELECTRICAL: SMB338904; (80063)	E	EA	1										A3A1A8W6
M--D		A582 LEAD, ELECTRICAL: SMB338905; (80063)	E	EA	1										A3A1A8W7
M--D		A583 LEAD, ELECTRICAL: SMB338906; (80063)	E	EA	1										A3A1A8W8
M--D		A584 LEAD, ELECTRICAL: SMB338907; (80063)	E	EA	1										A3A1A8W9
P--F	5950-569-0169	A585 TRANSFORMER, AUDIO FREQUENCY: SMC338900; (80063)	E	EA	1	•	•	1	•	•	1	8	3	11	A3A1A8T201
P--F	5950-648-1734	A586 TRANSFORMER, POWER, STEP-UP: SMD338954; (80063)	D	EA	1	•	•	1	•	•	1	8	3	10	A3A1T202
X2-F	5310-934-9757	A587 NUT, PLAIN, HEXAGON: SAME AS A074	*	EA	2										A3A1H66
P--F	5310-559-0070	A588 WASHER, LOCK: SAME AS A007	*	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A1H67
P--F	6760-345-0521	A589 TRANSFORMER, RADIO FREQUENCY: SMB338885; (80063)	D	EA	1	•	•	1	•	•	1	8	3		A3A1A9
P--F	5310-523-2031	A590 NUT, SHEET SPRING: SMD359123-12; (80063)	*	EA	1	•	•	1	•	•	1	8	3		A3A1H68
X2-F	5310-579-0079	A591 WASHER, LOCK: SAME AS A011	*	EA	1										A3A1H69
P--F	5910-451-2312	A592 CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	E	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	10	A3A1A9C217
P--F	5910-451-2311	A593 CAPACITOR, FIXED, GLASS DIEL: SMB338885-1; (80063)	E	EA	1	•	•	1	•	•	1	8	3	10	A3A1A9C218
M--D		A594 LEAD, ELECTRICAL: SMB338887; (80063)	E	EA	1										A3A1A9W1
M--D		A595 LEAD, ELECTRICAL: SAME AS A187	E	EA	1										A3A1A9W2
M--D		A596 LEAD, ELECTRICAL: SMB338889; (80063)	E	EA	1										A3A1A9W3
P--F	5905-435-1723	A597 RESISTOR, FIXED, COMPOSITION: MS35044-118; (96906)	E	EA	1	•	•	1	•	•	1	8	3	10	A3A1A9R231
P--F	5950-244-8420	A598 TRANSFORMER, RADIO FREQUENCY: SMC338886; (80063)	E	EA	1	•	•	1	•	•	1	8	3	10	A3A1A9T203
P--0-8	6730-991-9560	A599 ARM ASSEMBLY, FEED REEL: SMD339038; (80063)	C	EA	1	•	•	1	•	•	1	8	3	27	A3A2
X1-0		A600 ARM, FEED REEL: SMC339039; (80063)	D	EA	1									27	A3A2MP1

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	3110-156-4278	A601 D BEARING, BALL, ANNULAR: 13301; (43991)	EA	1	•	1	1	•	1	1	13	6	27	A3A2MP2
P--F	3110-277-0141	A602 D BEARING, ROLLER, NEEDLE: B87CH; (60380)	EA	2	1	1	2	1	1	1	27	15	27	A3A2MP3
P--F	3110-277-0141	A603 D BEARING, ROLLER, NEEDLE: SAME AS A602	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	27	A3A2MP4
P--F	6730-341-7844	A604 D CLUTCH HALF, POSITIVE: SMB339061; (80063)	EA	1	•	•	1	•	•	1	8	3	27	A3A2A1
P--F	6730-341-7799	A605 D CLUTCH ASSEMBLY HALF, POSITIVE: SMC339053; (80063)	EA	1	•	•	1	•	•	1	8	3	27	A3A2A2
X1-F		A606 E KNOB: SMB339057; (80063)	EA	1									27	A3A2A2MP1
X1-F		A607 E SPRING, HELICAL, COMPRESSION: SMB339056; (80063)	EA	1									27	A3A2A2MP2
X1-F		A608 E STUD: SMB339054; (80063)	EA	1									27	A3A2A2MP3
P--F	6730-662-6029	A609 D LINING, FRICTION: SMB339042; (80063)	EA	1	•	1	1	•	1	1	13	6	27	A3A2MP5
P--F	5310-346-9957	A610 D NUT, HEXAGON, SPECIAL PURPOSE: SMB339040; (80063)	EA	1	•	1	1	•	1	1	13	6	27	A3A2MP6
P--F	5310-537-8156	A611 • NUT, SELF-LOCKING, HEXAGON: SMD339038-4; (80063)	EA	1	•	•	1	•	•	1	8	3	27	A3A2H1
P--F	5315-832-9081	A612 D PIN, SPRING: SMD339038-2; (80063)	EA	1	•	•	1	•	•	1	8	3	27	A3A2MP7
P--F	5315-832-9080	A613 D PIN, STRAIGHT, HEADLESS: SMD339038-3; (80063)	EA	2	•	1	1	•	1	1	13	6	27	A3A2MP8
P--F	5315-832-9080	A614 D PIN, STRAIGHT, HEADLESS: SAME AS A613	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	27	A3A2MP9
P--F	6730-542-1181	A615 D PULLEY, GROOVE: SMC339041; (80063)	EA	1	•	•	1	•	•	1	8	3	27	A3A2MP10
P--F	6760-392-8974	A616 D SPINDLE ASSEMBLY, TAKE-UP AND FD: SMC339046; (80063)	EA	1	•	1	1	•	1	1	13	6	27	A3A2A3
X1-F		A617 E CLIP: SMB339047; (80063)	EA	1									27	A3A2A3MP1
X2-F	5315-058-9727	A618 • PIN, SPRING: SMC339046-1; (80063)	EA	1									27	A3A2A3H1
X1-F		A619 E LINING, FRICTION: SMB339051; (80063)	EA	1									27	A3A2A3MP2
X1-F		A620 E PLATE, DRIVE: SMC339050; (80063)	EA	1									27	A3A2A3MP3
X1-F		A621 E PLUNGER, DETENT: SMB339048; (80063)	EA	1									27	A3A2A3MP4
X1-F		A622 E SPINDLE: SMC339052; (80063)	EA	1									27	A3A2A3MP5
X1-F		A623 E SPRING, HELICAL, COMPRESSION: SMB339049; (80063)	EA	1									27	A3A2A3MP6
P--F	6730-265-6283	A624 D SPRING, HELICAL: SMB339045; (80063)	EA	1	•	1	1	•	1	1	13	6	27	A3A2MP11
P--F	5305-695-4536	A625 D THUMBSCREW: SMB339044; (80063)	EA	1	•	1	1	•	1	1	13	6	27	A3A2MP12

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-291-4526	A626 D WASHER, THRUST: SMD339043; (80063)	EA	2	•	1	2	•	1	1	18	9	27	A3A2MP13
P--F	5310-291-4526	A627 D WASHER, THRUST: SAME AS A626	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	27	A3A2MP14
P--O-S	6730-629-0972	A628 C ARM ASSEMBLY, TAKE-UP REEL: SMD339064; (80063)	EA	1	•	•	1	•	•	1	8	3	28	A3A3
X1-F		A629 D ARM, TAKE-UP REEL: SMC339067; (80063)	EA	1									28	A3A3MP1
P--F	3110-156-4278	A630 D BEARING, BALL, ANNULAR: SAME AS A601	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP2
P--F	3110-277-0141	A631 D BEARING, NEEDLE, ROLLER: SAME AS A602	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP3
P--F	3110-277-0141	A632 D BEARING, NEEDLE, ROLLER: SAME AS A602	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP4
P--F	6730-662-6029	A633 D LINING, FRICTION: SAME AS A609	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP5
P--F		A634 D NUT, HEXAGON, SPECIAL PURPOSE: SAME AS A610	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP6
P--F		A635 • NUT, SELF-LOCKING, HEXAGON: SMD339064-1; (80063)	EA	1	•	•	1	•	•	1	8	3	28	A3A3H1
P--F	5315-832-8091	A636 D PIN, SPRING: SMD339064-5; (80063)	EA	1	•	•	1	•	•	1	8	3	28	A3A3MP7
P--F	5315-832-8090	A637 D PIN, STRAIGHT, HEADLESS: SMD339064-4; (80063)	EA	2	•	1	1	•	1	1	13	6	28	A3A3MP8
P--F	5315-832-8090	A638 D PIN, STRAIGHT, HEADLESS: SAME AS A637	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP9
X1-F		A639 D PLATE: SMB339066; (80063)	EA	1									28	A3A3MP15
P--F	6730-542-1085	A640 D PULLEY, GROOVE: SMC339065; (80063)	EA	1	•	•	1	•	•	1	8	3	28	A3A3MP10
P--F	6760-392-8974	A641 D SPINDLE ASSEMBLY, TAKE-UP AND FD: SAME AS A616	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3A1
X1-F		A642 E CLIP: SAME AS A617	EA	1									28	A3A3A1MP1
X2-F	5315-058-9727	A643 • PIN, SPRING: SAME AS A618	EA	1									28	A3A3A1H1
X1-F		A644 E LINING, FRICTION: SAME AS A619	EA	1									28	A3A3A1MP2
X1-F		A645 E PLATE, DRIVE: SAME AS A620	EA	1									28	A3A3A1MP3
X1-F		A646 E PLUNGER, DETENT: SAME AS A621	EA	1									28	A3A3A1MP4
X1-F		A647 E SPINDLE: SAME AS A622	EA	1									28	A3A3A1MP5
X1-F		A648 E SPRING, HELICAL, COMPRESSION: SAME AS A623	EA	1									28	A3A3A1MP6
P--F	6730-265-6283	A649 D SPRING, HELICAL, COMPRESSION: SAME AS A624	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP11
P--F	5305-695-4536	A650 D THUMBSCREW: SAME AS A625	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP12

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-291-4526	A651 D WASHER, THRUST: SAME AS A626	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	28	A3A3MP13
P--O	3030-937-5546	A652 C BELT, ROUND, TAKE-UP, REAR: SMB339105; (80063)	EA	2	*	1	1	*	1	1	13	6		A3MP1
P--O	3030-937-5545	A653 C BELT, ROUND, FEED, FRONT: SMB339106; (80063)	EA	2	*	1	1	*	1	1	13	6		A3MP2
P--O	6730-673-1917	A654 C BOTTLE, DROPPER: SMB339093; (80063)	EA	1	*	*	1	*	*	1	8	3		A3A4
M--D		A655 C BRACKET, DOUBLE ANGLE: SMB339011; (80063)	EA	1										A3MP3
P--F	5310-208-5351	A656 * NUT, PLAIN, HEXAGON: SMD446604-8; (80063)	EA	12	2	4	7	1	1	2	83	60		A3H3
P--F	5305-531-1682	A657 * SCREW, MACHINE: SMD446604-9; (80063)	EA	4	1	2	3	1	1	1	33	20		A3H4
P--F	5310-193-7577	A658 * WASHER, LOCK: SAME AS A026	EA	12	REF	REF	REF	REF	REF	REF	REF	REF		A3H5
M--D		A659 C BRACKET, DOUBLE ANGLE: SMB359125; (80063)	EA	2										A3MP4
M--D		A650 C BRACKET, DOUBLE ANGLE: SAME AS A659	EA	REF										A3MP5
X2-F	5305-638-5684	A661 * SCREW, MACHINE: AN515-6-6; (88044)	EA	4										A3H6
X2-F	5310-579-0079	A662 * WASHER, LOCK: SAME AS A011	EA	4										A3H7
P--F		A663 C BRACKET ASSEMBLY, LAMP: SMD339069; (80063)	EA	1	*	*	1	*	*	1	8	3	25	A3A5
X2-F	5305-206-0540	A664 * SCREW, MACHINE: AN515-8-6; (88044)	EA	2									25	A3H8
P--F	5310-559-0070	A665 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	25	A3H9
X1-F		A666 D BRACKET, LAMP SOCKET: SMC339070; (80063)	EA	1									25	A3A5MP1
X1-F		A667 * STUD: SMB339072; (80063)	EA	2									25	A3A5H1
X1-F		A668 * WASHER, FLAT: SMB339075; (80063)	EA	2									25	A3A5H2
X1-F		A669 * WASHER, SPRING, TENSION: SMB339074; (80063)	EA	2									25	A3A5H3
X1-F		A670 D BUSHING, SLEEVE: SMB339071; (80063)	EA	2									25	A3A5MP2
X1-F		A671 D BUSHING, SLEEVE: SAME AS A670	EA	REF									25	A3A5MP3
P--O	6740-345-0532	A672 D LEVER, MANUAL CONTROL: SMB339073; (80063)	EA	2	*	1	1	*	1	1	13	6	25	A3A5MP4
P--O	6740-345-0532	A673 D LEVER, MANUAL CONTROL: SAME AS A672	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A5MP5
X1-F		A674 D PLATE, LAMP ADJUSTING: SMC339076; (80063)	EA	1									25	A3A5A1
X1-F		A675 E PLATE: SMB339077; (80063)	EA	1									25	A3A5A1MP1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X1-F		A676 • STUD: SMB339079; (80063)	EA	2									25	A3A5A1E1
X1-F		A677 • WASHER, FLAT: SAME AS A668	EA	2									25	A3A5A1E2
X1-F		A678 • WASHER, SPRING, TENSION: SAME AS A669	EA	2									25	A3A5A1E3
X1-F		A679 E PLATE: SMB339078; (80063)	EA	1									25	A3A5A1MP2
X1-F		A680 D SHAFT ASSEMBLY, LAMP: SMB339083; (80063)	EA	1									25	A3A5A2
X1-F		A681 D SHAFT ASSEMBLY, REAR LAMP: SMB339080; (80063)	EA	1									25	A3A5A3
P—O	7920-356-4694	A682 C BRUSH, APERTURE: SMD446604-10; (80063)	EA	1	•	•	1	•	•	1	8	3		A3MP6
P—O	5340-205-5244	A683 C BUTTON, PLUG: SMD446604-3; (80063)	EA	1	•	•	1	•	•	1	8	3	54	A3MP7
P—O-	6730-617-0962	A684 C CABLE ASSEMBLY, POWER, ELEC: SMB339150; (80063)	EA	1	•	•	1	•	•	1	8	3	9	A3W501
P—O		A685 D CABLE ASSEMBLY, POWER, ELEC: SMB339151; (80063)	EA	1	•	•	1	•	•	1	8	3		A3W501W1
P—O	5935-201-7902	A686 D CONNECTOR, PLUG, ELECTRICAL: SMB339152; (80063)	EA	1	•	•	1	•	•	1	8	3	9	A3W501P503
P—O	5935-843-7362	A687 D CONNECTOR, PLUG, ELECTRICAL: SAME AS A029	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	9	A3W501P501
P—O		A688 C CAP, SCREW CAP: SMB446601; (80063)	EA	1	•	•	1	•	•	1	8	3		A3MP8
A—F-		A689 C CASE ASSEMBLY, PROJECTOR: SMB338812; (80063)	EA	1									54	A3A6
X2-F	5310-934-9751	A690 • NUT, PLAIN, HEXAGON: MS35650-302; (96906)	EA	1									26	A3H10
X2-F	5305-151-2763	A691 • SCREW, MACHINE: AN520-10-4; (88044)	EA	1									26	A3H11
P—F	5305-839-5035	A692 • SCREW, MACHINE: SMB446607; (80063)	EA	2	•	1	1	•	1	1	13	6	26	A3H12
X2-F	5310-576-5752	A693 • WASHER, LOCK: MS35333-39; (96906)	EA	1									26	A3H13
X2-F	5310-167-0662	A694 • WASHER, LOCK: MS35337-43; (96906)	EA	1									26	A3H14
P—F	5310-285-1559	A695 • WASHER, LOCK: SMB339112; (80063)	EA	2	1	1	2	1	1	1	27	15		A3H40
P—F	5310-550-1130	A696 • WASHER, LOCK: SAME AS A350	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3H41
P—F	6730-356-6879	A697 D ARM ASSEMBLY, TILT JACK: SMB338833; (80063)	EA	1	•	•	1	•	•	1	8	3	34	A3A6A1
M—D		A698 D BRACKET, ANGLE: SMB338813; (80063)	EA	2										A3A6MP1
M—D		A699 D BRACKET, ANGLE: SAME AS A698	EA	REF									54	A3A6MP2
P—F		A700 • SCREW, MACHINE: SAME AS A333	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3A6H1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-559-0070	A701 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A6H2
X2-F		A702 D CASE ASSEMBLY, CENTER: SMD338850; (80063)	EA	1										A3A6A2
X2-F		A703 E BUSHING, SLEEVE: SMB338852; (80063)	EA	2									54	A3A6A2MP1
X2-F		A704 E BUSHING, SLEEVE: SAME AS A703	EA	REF									54	A3A6A2MP2
X2-F		A705 E BUSHING, SLEEVE: SMB338853; (80063)	EA	6									54	A3A6A2MP3
X2-F		A706 E BUSHING, SLEEVE: SAME AS A705	EA	REF									54	A3A6A2MP4
X2-F		A707 E BUSHING, SLEEVE: SAME AS A705	EA	REF									54	A3A6A2MP5
X2-F		A708 E BUSHING, SLEEVE: SAME AS A705	EA	REF									54	A3A6A2MP6
X2-F		A709 E BUSHING, SLEEVE: SAME AS A705	EA	REF									54	A3A6A2MP7
X2-F		A710 E BUSHING, SLEEVE: SAME AS A705	EA	REF									54	A3A6A2MP8
X2-F		A711 E CASE, CENTER: SMD338855; (80063)	EA	1									54	A3A6A2A1
M--D		A712 E HINGE, LEAF BUTT: SMB338854; (80063)	EA	2									54	A3A6A2MP9
M--D		A713 E HINGE, LEAF BUTT: SAME AS A712	EA	REF									54	A3A6A2MP10
X2-F		A714 * RIVET, TUBULAR: AN450C1288; (88044)	EA	4									54	A3A6A2H1
M--D		A715 D FILTER: SMC338826; (80063)	EA	1									54	A3A6MP3
M--D		A716 D FILTER, LATCH END: SMC338827; (80063)	EA	1									54	A3A6MP4
P--F		A717 D FOOT, RUBBER: SMB338830; (80063)	EA	1	*	*	1	*	*	1	8	3	34	A3A6MP22
P--F	6730-341-7853	A718 D GEAR RACK: SMB338814; (80063)	EA	1	*	*	1	*	*	1	8	3	26	A3A6MP5
P--F	6730-696-2717	A719 D HANDLE, LUGGAGE: SAME AS A317	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	54	A3A6MP6
X2-F		A720 * NUT, SELF-LOCKING, HEXAGON: SMD338812-6; (80063)	EA	4									54	A3A6H3
X2-F		A721 * PIN, STRAIGHT, HEADLESS: SAME AS A319	EA	2									54	A3A6H4
X2-F		A722 * POST, ELECTRICAL-MECHANICAL EQPT: SAME AS A320	EA	4									54	A3A6H5
M--D		A723 * SPACER, PLATE: SMB338823; (80063)	EA	4									54	A3A6H6
X2-F		A724 * SPRING, HELICAL, TORSION: SAME AS A321	EA	2									54	A3A6H7
P--F	6730-356-6919	A725 D HOUSING, TILT JACK: SMC338836; (80063)	EA	1	*	*	1	*	*	1	8	3	34	A3A6A3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	5310-840-6791	A726 * NUT, SELF-LOCKING, HEXAGON: SMD338812-5; (80063)	EA	3									26	A3A6H8
X2-F		A727 * SCREW, MACHINE: SMD338812-2; (80063)	EA	3									26	A3A6H9
X1-F		A728 E GASKET: SMB338838; (80063)	EA	1									34	A3A6A3MP1
X1-F		A729 E RACK GUIDE, TILT JACK: SMC338839; (80063)	EA	1									34	A3A6A3A1
X1-F		A730 E WASHER, FLAT: SMB338837; (80063)	EA	1									34	A3A6A3MP2
P--O	5355-667-9398	A731 D KNOB, TILT JACK: SMB338822; (80063)	EA	1	*	*	1	*	*	1	8	3	26	A3A6MP7
P--O	5315-151-9050	A732 * PIN, GROOVED, HEADLESS: SMD338812-4; (80063)	EA	1	*	*	1	*	*	1	8	3	26	A3A6H10
P--F	6730-671-8122	A733 D LEG ASSEMBLY, CASE, REAR: SMC338859; (80063)	EA	1	*	*	1	*	*	1	8	3	35	A3A6A4
X2-F		A734 * NUT, SELF-LOCKING, HEXAGON: SAME AS A720	EA	3									25	A3A6H11
X2-F		A735 * SCREW, MACHINE: AN515-8-14; (88044)	EA	3									25	A3A6H12
P--O	6730-356-6913	A736 E BUMPER ASSEMBLY, RUBBER: SMB338865; (80063)	EA	1	*	1	2	*	1	1	18	9	35	A3A6A4A1
P--F	5340-143-0132	A737 F BUMPER, RUBBER: SMB338868; (80063)	EA	1	*	1	2	*	1	1	18	9	35	A3A6A4A1MP1
X1-F		A738 F MOUNT, BUMPER: SMB338866; (80063)	EA	1									35	A3A6A4A1MP2
X1-F		A739 F PIN, GROOVED, HEADED: SMB338867; (80063)	EA	1									35	A3A6A4A1MP3
P--O	6730-356-6914	A740 E BUMPER ASSEMBLY, RUBBER: SMB338869; (80063)	EA	1	*	*	1	*	*	1	8	3	35	A3A6A4A2
P--O	5305-638-3447	A741 * SCREW, MACHINE: SMB338861; (80063)	EA	1	*	*	1	*	*	1	8	3	35	A3A6A4H2
P--O	5310-559-0070	A742 * WASHER, LOCK: SAME AS A007	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	35	A3A6A4H3
X1-F		A743 F BUMPER, ADJUSTABLE: SMB338870; (80063)	EA	1									35	A3A6A4A2MP1
X1-F	5340-143-0132	A744 F BUMPER, RUBBER: SAME AS A737	EA	1									35	A3A6A4A2MP2
X1-F		A745 F PIN, GROOVED, HEADED: SMB338871; (80063)	EA	1									35	A3A6A4A2MP3
X1-F		A746 F WASHER, FLAT: SMB338872; (80063)	EA	1									35	A3A6A4A2MP4
X1-F		A747 E LEG, REAR: SMC338862; (80063)	EA	1									35	A3A6A4A3
P--F	5305-660-2418	A748 E THUMBSCREW: SMB338860; (80063)	EA	1	*	*	1	*	*	1	8	3	35	A3A6A4MP1
P--F		A749 E WASHER, LOCK: SMC338859-1; (80063)	EA	1	*	*	1	*	*	1	8	3	35	A3A6A4H1
A--F		A750 D LEG ASSEMBLY, CASE, FRONT: SMC338873; (80063)	EA	1									25	A3A6A5

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		A751 * NUT, SELF-LOCKING, HEXAGON: SAME AS A720	EA	3										A3A6H20
X2-F		A752 * SCREW, MACHINE: SAME AS A735	EA	3										A3A6H21
P--O	6730-356-6913	A753 E BUMPER, RUBBER: SAME AS A736	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	35	A3A6A5A1
P--F	5340-143-0132	A754 F BUMPER, RUBBER: SAME AS A737	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	35	A3A6A5A1MP1
X1-F		A755 F MOUNT, BUMPER: SAME AS A738	EA	1									35	A3A6A5A1MP2
X1-F		A756 F PIN, GROOVED, HEADED: SAME AS A739	EA	1									35	A3A6A5A1MP3
P--O	6730-356-6913	A757 E BUMPER, RUBBER: SAME AS A736	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A5A2
P--F	5340-143-0132	A758 F BUMPER, RUBBER: SAME AS A737	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A5A2MP1
X1-F		A759 F MOUNT, BUMPER: SAME AS A738	EA	1										A3A6A5A2MP2
X1-F		A760 F PIN, GROOVED, HEADED: SAME AS A739	EA	1										A3A6A5A2MP3
X2-F		A761 E LED, CASE: SMC338874; (80063)	EA	1										A3A6A5A1A1
P--F		A762 E WASHER, LOCK: SMC338873-1; (80063)	EA	2	*	1	1	*	1	1	13	6	35	A3A6A5H1
M--D		A763 D PAD, CUSHIONING: SMB338819; (80063)	EA	4									54	A3A6MP8
M--D		A764 D PAD, CUSHIONING: SAME AS A763	EA	REF									54	A3A6MP9
M--D		A765 D PAD, CUSHIONING: SAME AS A763	EA	REF									54	A3A6MP10
M--D		A766 D PAD, CUSHIONING: SAME AS A763	EA	REF									54	A3A6MP11
P--F	6730-309-5735	A767 D PINION, TILT JACK: SMB338842; (80063)	EA	1	*	*	1	*	*	1	8	3	34	A3A6A6
X2-F		A768 E ANCHOR: SMB338844; (80063)	EA	1										A3A6A6MP1
X2-F		A769 E GEARSHAFT, SPUR: SMB338843; (80063)	EA	1									34	A3A6A6MP2
M--D		A770 D PLATE, INSTRUCTION: SMB338824; (80063)	EA	1									54	A3A6MP12
X2-F		A771 * SCREW, DRIVE: SMD338812-3; (80063)	EA	4										A3A6H22
M--D		A772 D PLATE, INSTRUCTION: SMD338825; (80063)	EA	1									54	A3A6MP13
X2-F		A773 * SCREW, DRIVE: SAME AS A771	EA	4									54	A3A6H13
A--F		A774 D ROLLER ASSEMBLY, FILM GUIDE: SMC338845; (80063)	EA	1									25	A3A6A7
X2-F		A775 * SCREW, MACHINE: SMD338812-8; (80063)	EA	2									25	A3A6H14

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		A776 * WASHER, FLAT: SMB338831; (80063)		EA	2									25	A3A6H15
X2-F	5310-264-1337	A777 * WASHER, LOCK: 1205-00-00; (78189)		EA	2									25	A3A6H16
M--D		A778 E BRACKET, ANGLE: SMB338846; (80063)		EA	1									25	A3A6A7MP1
X2-F		A779 E PIN, SHOULDER, HEADED: SMB338847; (80063)		EA	2									25	A3A6A7MP2
X2-F		A780 E PIN, SHOULDER, HEADED: SAME AS A779		EA	REF									25	A3A6A7MP3
P--F	6730-356-6959	A781 E ROLLER ASSEMBLY: SMB338848; (80063)		EA	1	1	1	2	1	1	1	27	15	25	A3A6A7A1
P--F	5310-208-5351	A782 * NUT, PLAIN, HEXAGON: SMC338845-1;(80063)		EA	1	1	1	2	1	1	1	27	15	25	A3A6A7H1
P--F	5310-193-7577	A783 * WASHER, LOCK: SAME AS A026		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A6A7H2
X1-F		A784 F BEARING, SLEEVE: SMB338848-1; (80063)		EA	2									25	A3A6A7A1MP1
X1-F		A785 F BEARING, SLEEVE: SAME AS A784		EA	REF									25	A3A6A7A1MP2
X1-F		A786 F ROLLER: SMB338849; (80063)		EA	1									25	A3A6A7A1MP3
P--F	6730-356-6959	A787 E ROLLER ASSEMBLY: SAME AS A781		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A6A7A2
P--F	5310-208-5351	A788 * NUT, PLAIN, HEXAGON: SAME AS A782		EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A7H3
P--F	5310-193-7577	A789 * WASHER, LOCK: SAME AS A026		EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A7H4
X1-F		A790 F BEARING, SLEEVE: SAME AS A784		EA	2									25	A3A6A7A2MP1
X1-F		A791 F BEARING, SLEEVE: SAME AS A784		EA	REF									25	A3A6A7A2MP2
X1-F		A792 F ROLLER: SAME AS A786		EA	1									25	A3A6A7A2MP3
A--F		A793 D ROLLER ASSEMBLY, FILM GUIDE: SAME AS A774		EA	1									25	A3A6A8
X2-F		A794 * SCREW, MACHINE: SAME AS A775		EA	2										A3A6H23
X2-F		A795 * WASHER, FLAT: SAME AS A776		EA	2										A3A6H24
X2-F	5310-264-1337	A796 * WASHER, FLAT: SAME AS A777		EA	2										A3A6H25
M--D		A797 E BRACKET, ANGLE: SAME AS A778		EA	1										A3A6A8MP1
X2-F		A798 E PIN, SHOULDER, HEADED: SAME AS A779		EA	2										A3A6A8MP2
X2-F		A799 E PIN, SHOULDER, HEADED: SAME AS A779		EA	REF										A3A6A8MP3
P--F	6730-356-6959	A800 E ROLLER ASSEMBLY: SAME AS A781		EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8A1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-208-5351	A801 * NUT, PLAIN, HEXAGON: SAME AS A782	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8H1
P--F	5310-193-7577	A802 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8H2
X1-F		A803 F BEARING, SLEEVE: SAME AS A784	EA	2										A3A6A8A1MP1
X1-F		A804 F BEARING, SLEEVE: SAME AS A784	EA	REF										A3A6A8A1MP2
X1-F		A805 F ROLLER: SAME AS A786	EA	3										A3A6A8A1MP3
P--F	6730-356-6959	A806 E ROLLER ASSEMBLY: SAME AS A781	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8A2
P--F	5310-208-5351	A807 * NUT, PLAIN, HEXAGON; SAME AS A782	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8H3
P--F	5310-193-7577	A808 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A6A8H4
X1-F		A809 F BEARING, SLEEVE: SAME AS A784	EA	2										A3A6A8A2MP1
X1-F		A810 F BEARING, SLEEVE: SAME AS A784	EA	REF										A3A6A8A2MP2
X1-F		A811 F ROLLER: SAME AS A786	EA	1										A3A6A8A2MP3
M--D		A812 D SPACER, PLATE: SMB338826; (80063)	EA	2									25	A3A6MP14
X2-F		A813 D SPRING, HELICAL, TORSION: SAME AS A321	EA	2										A3A6MP15
X2-F		A814 D SPRING, HELICAL, TORSION: SAME AS A321	EA	REF										A3A6MP16
P--F	6730-355-9860	A815 D SPRING, TORSION: SMB338817; (80063)	EA	1	*	*	1	*	*	1	8	3	34	A3A6MP17
X2-F		A816 D STOP: SMB338821; (80063)	EA	1									54	A3A6MP18
X2-F		A817 * NUT, SHEET SPRING: SMD338812-7; (80063)	EA	1									54	A3A6H17
P--H	6730-706-2608	A818 D STRIKE, CATCH: SAME AS A322	EA	1				REF	REF	REF	REF	REF	54	A3A6MP19
P--H		A819 * RIVET, TUBULAR: AN450C9B10; (88044)	EA	3				1	1	1	33	20	54	A3A6H18
X2-F	5310-595-5515	A820 D WASHER, SPRING TENSION: SMB338832; (80063)	EA	1									34	A3A6MP20
M--D		A821 C CLAMP, LOOP: SMD446604-5; (80063)	EA	1										A3MP9
A--F		A822 C CONNECTOR ASSEMBLY, RCPT, ELEC: SMB339086; (80063)	EA	1									54	A3A7
P--F	5310-208-5351	A823 * NUT, PLAIN, HEXAGON: SAME AS A656	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H15
P--F	5305-639-7972	A824 * SCREW, MACHINE: SMD446604-7; (80063)	EA	4	1	2	3	1	1	1	33	20	54	A3H16
P--F	5310-193-7577	A825 * WASHER, LOCK: SAME AS A026	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H17

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5935-259-3425	A826 D CONNECTOR, RECEPTACLE, ELEC: SMB339090; (80063)	EA	1	*	*	1	*	*	1	8	3	54	A3A7J103
M--D		A827 D INSULATION SLEEVING, ELECTRICAL: SMB339089; (80063)	EA	3										A3A7E1
M--D		A828 D INSULATION SLEEVING, ELECTRICAL: SAME AS A827	EA	REF										A3A7E2
M--D		A829 D INSULATION SLEEVING, ELECTRICAL: SAME AS A827	EA	REF										A3A7E3
M--D		A830 D LEAD, ELECTRICAL: SMB339087; (80063)	EA	1										A3A7W1
M--D		A831 D LEAD, ELECTRICAL: SMB339088; (80063)	EA	1										A3A7W2
M--D		A832 D LEAD, ELECTRICAL: SMB339091; (80063)	EA	1										A3A7W4
M--D		A833 E LEAD, ELECTRICAL: SMB339092; (80063)	EA	1										A3A7W4W1
P--F	5935-295-4358	A834 C CONNECTOR, RECEPTACLE, ELEC: SMB446734; (80063)	EA	1	*	*	1	*	*	1	8	3	54	A3J105
P--F	5306-841-0814	A835 * SCREW, MACHINE: SMD446604-6 (80063)	EA	2	*	1	1	*	1	1	13	6	54	A3H18
P--F	5310-285-1559	A836 * WASHER, FLAT: SAME AS A695	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H19
P--F	5310-550-1130	A837 * WASHER, LOCK: SAME AS A350	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H20
M--D		A838 C COVER: SMB339101; (80063)	EA	1									54	A3MP10
P--F	5310-208-5351	A839 * NUT, PLAIN, HEXAGON: SAME AS A656	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H21
P--F	5305-531-1682	A840 * SCREW, MACHINE: SAME AS A657	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H22
P--F	5310-193-7577	A841 * WASHER, LOCK: SAME AS A026	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	54	A3H23
G--O	6760-392-5680	A842 C COVER, PHOTOGRAPHIC PROJECTOR: SMD339154; (80063)	EA	1										A3MP11
X2-F		A843 C DOOR, ACS, INTERCONNECTING BOX: SMD339020; (80063)	EA	1									55	A3A8
X2-F		A844 D BRACKET, DOUBLE ANGLE: SMB339025; (80063)	EA	1									55	A3A8MP1
X2-F		A845 * RIVET, TUBULAR: SAME AS A714	EA	4									55	A3A8H1
P--H	5910-451-2314	A846 D CATCH, CLAMPING: SAME AS A309	EA	1				REF	REF	REF	REF	REF	55	A3A8MP2
P--H		A847 * RIVET, TUBULAR: SAME AS A819	EA	3				REF	REF	REF	REF	REF	55	A3A8H2
X2-F		A848 * WASHER, FLAT: SMB359094; (80063)	EA	3									55	A3A8H3
P--F	5940-177-1694	A849 D CLIP, RETAINING: SMD339020-2; (80063)	EA	2	*	1	1	*	1	1	13	6	55	A3A8MP3
P--F	5940-177-1694	A850 D CLIP, RETAINING: SAME AS A849	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	55	A3A8MP4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5340-543-1390	A851 D CLIP, RETAINING: SMD339020-3; (80063)	EA	1	*	*	1	*	*	1	8	3	55	A3A8MP5
P--F	5320-187-4935	A852 * RIVET, TUBULAR: AN450CB-5; (88044)	EA	2	*	1	1	*	1	1	13	6	55	A3A8H4
XD-F	*	A853 D DOOR, ACS, INTERCONNECTING BOX: SMC339030; (80063)	EA	1									55	A3A8A1
M--O		A854 E LEAF, BUTT HINGE: SMD339033-1; (80063)	EA	1									55	A3A8A1MP1
XD-F		A855 * RIVET, TUBULAR: SAME AS A714	EA	2									55	A3A8A1H2
M--O		A856 E LEAF, BUTT HINGE: SMD339033-2; (80063)	EA	1									55	A3A8A1MP2
XD-F		A857 * RIVET, TUBULAR: SAME AS A714	EA	2									55	A3A8A1H1
M--O		A858 D FILTER, ACOUSTICAL: SMD339027; (80063)	EA	1									55	A3A8MP6
M--O		A859 D FRAME, FILTER RETAINING: SMD595213; (80063)	EA	1									55	A3A8MP7
P--F	5320-075-1326	A860 * RIVET, TUBULAR: AN450CBAD10; (88044)	EA	14	2	3	6	1	1	2	65	45	55	A3A8H5
XD-F		A861 D HOLDER: SMC339027; (80063)	EA	1									55	A3A8MP8
XD-F		A862 D HOLDER ASSEMBLY, FILTER: SMC339034; (80063)	EA	1									55	A3A8A2
M--O		A863 D SPACER, PLATE: SMD339021; (80063)	EA	1									55	A3A8MP9
P--F		A864 * SCREW, MACHINE: SAME AS A333	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	55	A3A8H6
XD-F		A865 * WASHER, FLAT: SAME AS A098	EA	2									55	A3A8H7
P--F	5310-550-3070	A866 * WASHER, LOCK: SAME AS A307	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	55	A3A8H8
XD-F		A867 D SPRING, LEAF: SMD339026; (80063)	EA	1									55	A3A8MP10
XD-F		A868 * RIVET, TUBULAR: SMD339020-1; (80063)	EA	4									55	A3A8H9
XD-F		A869 * WASHER, FLAT: SAME AS A776	EA	4									55	A3A8H10
XD-O		A870 C FLYWHEEL: SMC339096; (80063)	EA	1									26	A3MP12
XD-F		A871 * SCREW, EXTERNAL RELIEVED BODY: SMD339111; (80063)	EA	1									26	A3H24
P--O	5920-284-6733	A872 C FUSE, CARTRIDGE: SAME AS A157	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3F1
P--O	5920-199-9508	A873 C FUSE, CARTRIDGE: SMD446604-1; (80063)	EA	3	1	3	5	1	1	1	46	30	24	A3F101
P--O	5920-199-9508	A874 C FUSE, CARTRIDGE: SAME AS A873	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	24	A3F102
P--O	5920-199-9508	A875 C FUSE, CARTRIDGE: SAME AS A873	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3F2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5920-568-0905	A876 C FUSEHOLDER: SMD446604-2; (80063)	EA	2	*	1	1	*	1	1	13	6	24	A3XF101
P--F	5920-568-0906	A877 C FUSEHOLDER: SAME AS A876	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	24	A3XF102
M--O		A878 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	6										A3E1
M--O		A879 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A3E2
M--O		A880 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A3E3
M--O		A881 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A3E4
M--O		A882 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A3E5
M--O		A883 C INSULATION SLEEVING, ELECTRICAL: SAME AS A290	EA	REF										A3E6
X2-F		A884 C KNOB: SMB339097; (80063)	EA	1									24	A3MP13
P--F	5310-638-0946	A885 * NUT, PLAIN, HEXAGON: SMB339114; (80063)	EA	1	*	*	1	*	*	1	8	3	48	A3H36
P--O	6240-143-3049	A886 C LAMP, INCANDESCENT: SMB339009; (80063)	EA	1	1	2	3	1	1	1	33	20	24	A3DS1
P--O	6240-156-1568	A887 C LAMP, INCANDESCENT: SMC339109; (80063)	EA	2	2	3	6	1	1	2	59	40	25	A3DS103
P--O	6240-156-1568	A888 C LAMP, INCANDESCENT: SAME AS A887	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	25	A3DS2
P--O	6240-243-8336	A889 C LAMP, INCANDESCENT: SMB339110; (80063)	EA	1	1	3	5	1	1	1	46	30	25	A3DS3
P--F	6250-176-0962	A890 C LAMPHOLDER: SMB446656; (80063)	EA	1	*	*	1	*	*	1	8	3		A3XDS103
P--F	5305-773-5685	A891 * SCREW, MACHINE: SMD446604-11; (80063)	EA	2	*	1	1	*	1	1	13	6		A3H25
M--O		A892 C LEAD, ELECTRICAL: SAME AS A177	EA	1										A3A9
P--F	5310-008-5351	A893 * NUT, PLAIN, HEXAGON: SAME AS A656	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3H26
P--F	5305-639-7977	A894 * SCREW, MACHINE: SAME AS A824	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3H27
P--F	5310-193-7577	A895 * WASHER, LOCK: SAME AS A806	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3H28
M--O		A896 D LEAD, ELECTRICAL: SAME AS A178	EA	1										A3A9W1
P--O	6760-550-8389	A897 C LENS, PROJECTION: SMB339095; (80063)	EA	1	*	*	1	*	*	1	8	3	24	A3A10
P--O		A898 C PAPER, LENS: SMB339107; (80063)	EA	1	*	1	2	*	1	1	19	10		A3MP14
M--O		A899 C PLATE, IDENTIFICATION: SMB339102; (80063)	EA	1									24	A3MP15
X2-F	5305-173-3893	A900 * SCREW, DRIVE: AN535-00-2; (88044)	EA	2									24	A3H29

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--O		A901 C PLATE, IDENTIFICATION: SMD446606; (80063)		EA	1									54	A3MP16
X2-F		A902 * SCREW, MACHINE: AN515-6-4; (88044)		EA	4									54	A3H30
X2-F	5310-579-0079	A903 * WASHER, LOCK: SAME AS A011		EA	4									54	A3H31
A--F-		A904 C PLATE ASSEMBLY, MECH AND SND SEA: SMD446605; (80063)		EA	1									24	A3A11
P--F	6730-682-4741	A905 D CHAIN, ROLLER: SMD338647; (80063)		EA	1	•	•	1	•	•	1	8	3	26	A3A11A1
P--F	6730-341-7782	A906 D FAN, CENTRIFUGAL: SMD338664; (80063)		EA	1	•	•	1	•	•	1	8	3	26	A3A11B102
X2-F	5305-638-5684	A907 * SCREW, MACHINE: SAME AS A661		EA	7									26	A3A11H1
X2-F	5310-579-0079	A908 * WASHER, LOCK: SAME AS A011		EA	7									26	A3A11H2
X1-F		A909 E ARMATURE, MOTOR: SMC338665; (80063)		EA	1									40	A3A11B102L1
P--F	3110-144-8850	A910 E BEARING, BALL, ANNULAR: SMD338664-2; (80063)		EA	2	•	1	1	•	1	1	13	6	40	A3A11B102MP1
P--F	3110-144-8850	A911 E BEARING, BALL, ANNULAR: SAME AS A910		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B102MP2
P--F	4140-208-3361	A912 E BLOWER: SMC338674; (80063)		EA	1	•	•	1	•	•	1	8	3	40	A3A11B102MP3
P--F	5977-636-4603	A913 E BRUSH, ELECTRICAL CONTACT: SMB338673; (80063)		EA	2	•	1	1	•	1	1	13	6	40	A3A11B102E1
P--F	5977-636-4603	A914 E BRUSH, ELECTRICAL CONTACT: SAME AS A913		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B102E2
P--F	6730-642-2667	A915 E CAP, ELECTRICAL: SMD338671; (80063)		EA	2	•	1	1	•	1	1	13	6	40	A3A11B102E3
P--F	6730-642-2667	A916 E CAP, ELECTRICAL: SAME AS A915		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B102E4
P--F	5910-160-4803	A917 E CAPACITOR, FIXED, PAPER DIEL: SMD338664-4; (80063)		EA	2	•	1	1	•	1	1	13	6	40	A3A11B102C104
P--F	5910-160-4803	A918 E CAPACITOR, FIXED, PAPER DIEL: SAME AS A917		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B102C105
X2-F		A919 E COVER: SMD339010; (80063)		EA	1									40	A3A11B102MP7
P--H	5977-431-8669	A920 E HOLDER, ELECTRICAL CONTACT BRUSH: SMB338672; (80063)		EA	2				•	1	1	13	6	40	A3A11B102E5
P--H	5977-431-8669	A921 E HOLDER, ELECTRICAL CONTACT BRUSH: SAME AS A920		EA	REF				REF	REF	REF	REF	REF	40	A3A11B102E6
X2-F		A922 * SETSCREW: SMD338664-1; (80063)		EA	2									40	A3A11B102H1
X1-F		A923 E HOUSING, ELEC ROTATING EQPT: SMC338667; (80063)		EA	1									40	A3A11B102MP4
X2-F	5305-984-6202	A924 * SCREW, MACHINE: MS35206-254; (96906)		EA	2									40	A3A11B102H2
P--F	5310-559-0070	A925 * WASHER, LOCK: SAME AS A007		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B102H3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--D		A926 E SLEEVING, TEXTILE, ELECTRICAL: SMD338577; (80063)	EA	2										A3A11B1O2E7
M--D		A927 E SLEEVING, TEXTILE, ELECTRICAL: SAME AS A926	EA	REF										A3A11B1O2E8
X1-F		A928 E STATOR, MOTOR: SMC338669; (80063)	EA	1									40	A3A11B1O2L102
P--F	5305-151-0581	A929 * SCREW, MACHINE: AN526-832R18; (88044)	EA	2	*	1	1	*	1	1	13	6	40	A3A11B1O2H6
P--F	5310-559-0070	A930 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	40	A3A11B1O2H5
P--F		A931 E WASHER, FLAT: SMB338668; (80063)	EA	1	*	*	1	*	*	1	8	3	40	A3A11B1O2MP5
P--F	5310-322-4530	A932 E WASHER, SPRING, TENSION: SMB338670; (80063)	EA	1	*	*	1	*	*	1	8	3	40	A3A11B1O2MP6
		A933 D ASSEMBLY, LAMP HOUSE: SMD338649; (80063)	EA	1	*	*	1	*	*	1	8	3	23.1	A3A11A2
M--D		A934 * PIN, STRAIGHT, HEADLESS: SMD338649-4; (80063)	EA	2									23.1	A3A11A2H1
X2-F		A935 E HOUSING: SMB338655; (80063)	EA	1									23.1	A3A11A2MP1
X2-F		A936 E HOUSING, LAMP: SMD338650; (80063)	EA	1									23.1	A3A11A2MP2
X2-F		A937 E LOUVER, LIGHT: SMB338651; (80063)	EA	1									23.1	A3A11A2MP3
P--F	5310-838-3184	A938 * NUT, SHEET SPRING: SMD338649-2; (80063)	EA	3	*	1	2	*	1	1	18	9	23.1	A3A11A2H2
M--D		A939 * SPACER, SLEEVE: SMB338661; (80063)	EA	3									23.1	A3A11A2H3
X2-F		A940 * PIN, SHOULDER, HEADED: SMB338662; (80063)	EA	3									23.1	A3A11A2H4
X2-F		A941 E LOUVER, LIGHT: SMB338652; (80063)	EA	1									23.1	A3A11A2MP4
M--D		A942 E PLATE, INSTRUCTION: SMC338658; (80063)	EA	1									24	A3A11A2MP5
X2-F		A943 * SCREW, DRIVE: SMD338649-1' (80063)	EA	4									24	A3A11A2H9
M--D		A944 E PLATE, INSTRUCTION: SMB338659; (80063)	EA	1									24	A3A11A2MP6
X2-F		A945 * SCREW, DRIVE: SAME AS A943	EA	2									24	A3A11A2H10
X2-F		A946 E PLUNGER, DETENT: SMB338656; (80063)	EA	1									23.1	A3A11A2MP7
X2-F		A947 E REFLECTOR, LIGHT: SMB338653; (80063)	EA	2									23.1	A3A11A2MP8
X2-F		A948 E REFLECTOR, LIGHT: SAME AS A947	EA	REF									23.1	A3A11A2MP9
P--F	5310-523-2031	A949 * NUT, SHEET SPRING: SMD338649-3; (80063)	EA	4	*	1	2	*	1	1	33	20	23.1	A3A11A2H5
M--D		A950 * SPACER, SLEEVE: SMB338660; (80063)	EA	4									23.1	A3A11A2H6

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
XD-F		A951 * PIN, GROOVED, HEADLESS: SMB338663; (80063)	EA	4									23.1	A3A11A2H7
XD-F		A952 E REFLECTOR, LIGHT: SMB338654; (80063)	EA	1									23.1	A3A11A2MP10
XD-F		A953 * SCREW, DRIVE: SAME AS A943	EA	3										A3A11A2H8
X1-F		A954 E SPRING, HELICAL, COMPRESSION: SAME AS A623	EA	1									23.1	A3A11A2MP11
A--F-D		A955 D HEAD, SOUND PRODUCER: SMD446609; (80063)	EA	1									26	A3A11A3
P--F	5305-638-8294	A956 * SCREW, EXTERNAL RELIEVED BODY: SMB338630; (80063)	EA	7	2	4	7	1	1	2	80	65	26	A3A11H3
P--F	5310-193-7577	A957 * WASHER, LOCK: SAME AS A036	EA	7	REF	REF	REF	REF	REF	REF	REF	REF	26	A3A11H4
X2-F		A958 E BLOCK, TERMINAL: SMD446660; (80063)	EA	1									42	A3A11A3TB1
X2-F	5305-206-0538	A959 * SCREW, MACHINE: AN515-5-6; (88044)	EA	1									42	A3A11A3H1
X2-F		A960 * WASHER, LOCK: AN936A5; (88044)	EA	2									42	A3A11A3H2
M--D		A961 E BRACKET, ANGLE: SMD446659; (80063)	EA	1									42	A3A11A3MP1
XD-F		A962 * SCREW, MACHINE: SAME AS A902	EA	1									42	A3A11A3H3
X2-F	5310-579-0079	A963 * WASHER, LOCK: SAME AS A011	EA	8									42	A3A11A3H4
XD-F	5310-934-9747	A964 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	1									42	A3A11A3H5
P--F		A965 E CABLE ASSEMBLY, RADIO FREQUENCY: SMD446666; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3W1
X1-F		A966 F CABLE, RADIO FREQUENCY: SMD446667; (80063)	EA	1									42	A3A11A3W1W1
X1-F		A967 F CONTACT, ELECTRICAL: SMB338797; (80063)	EA	1									42	A3A11A3W1E1
P--F		A968 E CABLE ASSEMBLY, SP, ELECTRICAL: SMD446708; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3W2
X1-F	6145-606-8237	A969 F CABLE ASSEMBLY, RADIO FREQUENCY: SMB338792; (80063)	EA	1									42	A3A11A3W2W1
X1-F		A970 F CABLE ASSEMBLY, RADIO FREQUENCY: SMD446710; (80063)	EA	1									42	A3A11A3W2W2
X1-F		A971 F FERRULE: MS25311-110; (96906)	EA	3									42	A3A11A3W2E1
X1-F		A972 F FERRULE: SAME AS A971	EA	REF									42	A3A11A3W2E2
X1-F		A973 F FERRULE: SAME AS A971	EA	REF									42	A3A11A3W2E3
X1-F		A974 F LEAD, ELECTRICAL: SMB338794; (80063)	EA	8									42	A3A11A3W2W3
X1-F		A975 F LEAD, ELECTRICAL: SAME AS A974	EA	REF									42	A3A11A3W2W4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	6730-341-7791	A976 E CAM, CONTROL: SMB330735; (80063)		EA	1	*	*	1	*	*	1	8	3	42	A3A11A3MP2
P--H	6730-475-6060	A977 E CHASSIS ASSEMBLY: SMC446680; (80063)		EA	1				*	*	1	8	3	46	A3A11A3A1
P--F	5305-282-9000	A978 * SCREW, MACHINE: AN515C6-4; (88044)		EA	2	*	1	2	*	1	1	18	9		A3A11A3H6
X2-F		A979 * WASHER, LOCK: SAME AS A960		EA	2										A3A11A3H7
X1-H		A980 F ADAPTER, SWITCH: SMB446694; (80063)		EA	1									46	A3A11A3A1A1
X2-F		A981 * SETSCREW: SMC446680-3; (80063)		EA	2									46	A3A11A3A1H1
X1-H		A982 F BAR, ACTUATOR, ELECTRICAL SWITCH: SMB446683; (80063)		EA	1									46	A3A11A3A1A2
X1-H		A983 F BAR, ACTUATOR, ELECTRICAL SWITCH: SMB446690; (80063)		EA	1									46	A3A11A3A1MP1
X1-H		A984 F BAR, ACTUATOR, ELECTRICAL SWITCH: SMB446692; (80063)		EA	1									46	A3A11A3A1A3
X1-H		A985 F BASE, CHASSIS: SMC446681; (80063)		EA	1									46	A3A11A3A1A4
X1-H		A986 F CLAMP, ACTUATOR BAR: SMB446702; (80063)		EA	1									46	A3A11A3A1MP2
X2-F	5305-151-3565	A987 * SCREW, MACHINE: AN515-3-3; (88044)		EA	2									46	A3A11A3A1H2
X2-F		A988 * WASHER, LOCK: AN936A3; (88044)		EA	2									46	A3A11A3A1H3
X2-F		A989 F CLIP, SPRING TENSION: SMB446688; (80063)		EA	1									46	A3A11A3A1MP3
X2-F		A990 * NUT, PLAIN, HEXAGON: SMC446680-2; (80063)		EA	1									46	A3A11A3A1H4
X2-F	5305-206-0513	A991 * SCREW, MACHINE: SAME AS A339		EA	1									46	A3A11A3A1H5
X2-F	5310-579-0079	A992 * WASHER, LOCK: SAME AS A011		EA	1									46	A3A11A3A1H6
X1-H		A993 F HOLDER, SPRING: SMB446700; (80063)		EA	2									46	A3A11A3A1MP4
X1-H		A994 F HOLDER, SPRING: SAME AS A993		EA	REF									46	A3A11A3A1MP5
X1-H		A995 F LATCH, SWITCH: SMB446686; (80063)		EA	1									46	A3A11A3A1MP6
X1-H		A996 F PUSHBUTTON: SMB446689-1; (80063)		EA	1									46	A3A11A3A1MP7
X1-H		A997 F PUSHBUTTON: SMB446689-2; (80063)		EA	1									46	A3A11A3A1MP8
X1-H		A998 F PUSHBUTTON: SMB446689-3; (80063)		EA	1									46	A3A11A3A1MP9
X1-H		A999 F SPACER, STEPPED: SMB446691; (80063)		EA	1									42	A3A11A3A1MP10

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--H	5360-178-8153	B001 F SPRING, HELICAL, COMPRESSION: SMD446687; (80063)	EA	1				*	*	1	8	3	46	A3A11A3A1MP11
P--H	5360-178-8152	B002 F SPRING, HELICAL, COMPRESSION: SMD446699; (80063)	EA	3				*	1	1	18	9	46	A3A11A3A1MP12
P--H	5360-178-8152	B003 F SPRING, HELICAL, COMPRESSION: SAME AS B002	EA	REF				REF	REF	REF	REF	REF	46	A3A11A3A1MP13
P--H	5360-178-8152	B004 F SPRING, HELICAL, COMPRESSION: SAME AS B002	EA	REF				REF	REF	REF	REF	REF		A3A11A3A1MP14
P--H	5930-548-8487	B005 F SWITCH, ROTARY: SMD446701; (80063)	EA	1				*	*	1	8	3		A3A11A3A1S1
X2-H		B006 * NUT, PLAIN, HEXAGON: SAME AS A166	EA	1										A3A11A3A1H7
X2-H		B007 E CLAMP, LOOP: SMD446658; (80063)	EA	1									42	A3A11A3MP3
X2-F	5305-638-5684	B008 * SCREW, MACHINE: SAME AS A661	EA	1									42	A3A11A3H8
X2-F	5310-579-0079	B009 * WASHER, LOCK: SAME AS A011	EA	1									42	A3A11A3H9
X2-F	5310-934-9747	B010 * NUT, PLAIN, HEXAGON: SAME AS A085	EA	1									42	A3A11A3H10
P--H	5935-636-5913	B011 E CONNECTOR, PLUG, ELECTRICAL: SMD446735; (80063)	EA	1				*	*	1	8	3	42	A3A11A3P59
X2-H		B012 E COVER: SMD446657; (80063)	EA	1									42	A3A11A3MP4
X2-F		B013 * WASHER, LOCK: SAME AS A960	EA	1									42	A3A11A3H11
P--F	5305-282-9000	B014 * SCREW, MACHINE: SAME AS A978	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3H12
A--F		B015 E COVER ASSEMBLY, EXCITER, LAMP: SMB338775; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A2
X2-F		B016 F COVER, LAMP: SMC338776; (80063)	EA	1									42	A3A11A3A2MP1
P--F	5305-639-1120	B017 * THUMBSCREW: SMB338777; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A2H1
P--O	6210-548-0378	B018 F LENS, INDICATOR LAMP: SMB338778; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A2E101
P--F	5960-188-0933	B019 E ELECTRON TUBE: SMD446629-6; (80063)	EA	1	*	1	2	*	1	1	19	10	42	A3A11A3V51
M--D		B020 E INSULATION SLEEVING, ELECTRICAL: SMD446629-5; (80063)	EA	4										A3A11A3E1
P--O	6240-099-8600	B021 E LAMP, INCANDESCENT: SMD446629-2; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3DS1
P--O	6240-243-8336	B022 E LAMP, INCANDESCENT: SAME AS A889	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3DS2
P--F	6250-428-7571	B023 E LAMPHOLDER: SMB338786; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3XDS2
X2-F		B024 * SCREW, MACHINE: AN505-2-5; (88044)	EA	3									42	A3A11A3H13
P--F	5935-134-5308	B025 E LAMPHOLDER: SMB446703; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3XDS1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--E	6730-393-3983	B026 E LENS, COND, SND, PHOTOGRAPHIC: SMB338734; (80063)	EA	1				•	•	1	8	3	42	A3A11A3MP5
P--F	5305-616-2529	B027 • SCREW, MACHINE: AN500-6-6; (88044)	EA	1	•	•	1	•	•	1	8	3	42	A3A11A3H14
X2-F		B028 E LEVER, RETRACTING: SMD446630; (80063)	EA	1									42	A3A11A3A4
X2-F	5310-840-6791	B029 • NUT, SELF-LOCKING, HEXAGON: SMD446629-7; (80063)	EA	1									42	A3A11A3H15
X2-F		B030 • STUD: SMB446712; (80063)	EA	1									42	A3A11A3H16
X2-F		B031 • WASHER, PLAIN: SMD446713; (80063)	EA	1									42	A3A11A3H17
X2-F		B032 E MOUNTING, PLATE: SMD446711; (80063)	EA	1									42	A3A11A3MP6
X2-F		B033 E NUT, HEXAGON, SPECIAL PURPOSE: SMB338736; (80063)	EA	1									42	A3A11A3MP7
P--F	5961-177-8955	B034 E PHOTOELECTRIC CELL: SMC338809; (80063)	EA	1	•	1	2	•	1	1	19	10	42	A3A11A3A5V52
P--F		B035 • SCREW, MACHINE: SMD446629-8; (80063)	EA	2	•	1	1	•	1	1	13	6	42	A3A11A3H18
X2-F	5310-209-1551	B036 • WASHER, LOCK: MS35337-21; (96906)	EA	2									42	A3A11A3H19
P--F	6730-356-6939	B037 E PLATE ASSEMBLY: SMB338783; (80063)	EA	1	•	•	1	•	•	1	8	3	42	A3A11A3A6
X2-F		B038 • SCREW, MACHINE: SMD446629-3; (80063)	EA	2									42	A3A11A3H20
X2-F	5310-209-1551	B039 • WASHER, LOCK: SAME AS B036	EA	2									42	A3A11A3H21
M--D		B040 E PLATE, IDENTIFICATION: SMB446668; (80063)	EA	1									42	A3A11A3MP8
X2-F		B041 • SCREW, DRIVE: SMD446629-4; (80063)	EA	4									42	A3A11A3H22
M--D		B042 E PLATE, IDENTIFICATION: SMB446726; (80063)	EA	1									42	A3A11A3MP9
P--F	6730-356-6955	B043 E ROLLER ASSEMBLY: SMC338772; (80063)	EA	1	•	•	1	•	•	1	8	3	42	A3A11A3A7
P--F	5340-918-9555	B044 • RING, RETAINING: SMD446629-1; (80063)	EA	1	•	1	1	•	1	1	13	6	42	A3A11A3H23
P--F	6730-709-6028	B045 • STUD: SMB338737; (80063)	EA	1	•	1	1	•	1	1	13	6	42	A3A11A3H24
X2-F		B046 • WASHER, FLAT: SMB338740; (80063)	EA	1									42	A3A11A3H25
X2-F	5310-559-0070	B047 • WASHER, LOCK: SAME AS A007	EA	1									42	A3A11A3H26
X1-F		B048 F BEARING, SLEEVE: SMB338770; (80063)	EA	1									43	A3A11A3A7MP1
X1-F		B049 F BEARING, SLEEVE: SMB338771; (80063)	EA	2									43	A3A11A3A7MP2
X1-F		B050 F BEARING, SLEEVE: SAME AS B049	EA	REF									43	A3A11A3A7MP3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X1-F		B051 F HOUSING: SMC338773; (80063)		EA	1									43	A3A11A3A7MP4
X1-F		B052 F ROLLER: SMB338774; (80063)		EA	1									43	A3A11A3A7MP5
X2-F		B053 * SETSCREW: SMC338772-1; (80063)		EA	1									43	A3A11A3A7H1
X1-F		B054 F SHAFT, SHOULDERED: SMB338769; (80063)		EA	1									43	A3A11A3A7MP6
X2-F		B055 H ROLLER ASSEMBLY: SMC446663; (80063)		EA	1									44	A3A11A3A8
X2-F		B056 * SCREW, MACHINE: SMB338386; (80063)		EA	1									42	A3A11A3H27
X2-F		B057 F DISK, SOLID, PLAIN: SMB338761; (80063)		EA	1									44	A3A11A3A8MP1
X2-F		B058 F HOUSING: SMC338766; (80063)		EA	1									44	A3A11A3A8MP2
P--F	5310-394-7253	B059 F NUT, PLAIN, KNURLED: SMB338759; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8MP3
P--F		B060 * SCREW, MACHINE: SMB446664; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8H1
P--F	5310-193-7577	B061 * WASHER, LOCK: SAME AS A026		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	44	A3A11A3A8H2
P--F		B062 F PIN: SMB338757; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8MP4
P--F	5305-687-4463	B063 * SETSCREW: SMC446663-2; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8H3
P--F		B064 F PIN: SMB338758; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8MP5
P--F	5305-687-3205	B065 * SETSCREW: SMC446663-1; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8H4
P--F	6730-178-5835	B066 F ROLLER: SMA446665; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8A1
P--F	3120-087-9009	B067 G BEARING, SLEEVE: SMB338764; (80063)		EA	2	*	1	1	*	1	1	13	6	44	A3A11A3A8A1MP1
P--F	3120-087-9009	B068 G BEARING, SLEEVE: SAME AS B067		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	44	A3A11A3A8A1MP2
X1-F		B069 G ROLLER: SMC338763; (80063)		EA	1									44	A3A11A3A8A1MP3
X1-F	6730-178-5834	B070 G WICK: SMB338765; (80063)		EA	1									44	A3A11A3A8A1MP4
P--F	6730-598-9057	B071 F SPRING, HELICAL, COMPRESSION: SMB338760; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8MP6
P--F	6730-356-6966	B072 F STUD: SMC338756; (80063)		EA	1	*	*	1	*	*	1	8	3	44	A3A11A3A8MP7
P--F	6730-356-6956	B073 H ROLLER ASSEMBLY, JOCKEY: SMD338766; (80063)		EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A9
P--F	5340-918-9555	B074 * RING, RETAINING: SAME AS B044		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3H28
P--F	6730-709-6028	B075 * STUD: SAME AS B045		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3H29

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		B076 * WASHER, FLAT: SAME AS B046	EA	1									42	A3A11A3H30
P--F	5310-559-0070	B077 * WASHER, LOCK: SAME AS A007	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3H31
X1-F		B078 F BEARING, SLEEVE: SAME AS B048	EA	1									43	A3A11A3A9MP1
X1-F		B079 F BEARING, SLEEVE: SAME AS B049	EA	2									43	A3A11A3A9MP2
X1-F		B080 F BEARING, SLEEVE: SAME AS B049	EA	REF									43	A3A11A3A9MP3
X1-F		B081 F HOUSING: SMB338767; (80063)	EA	1									43	A3A11A3A9MP4
X1-F		B082 F ROLLER: SMB338768; (80063)	EA	1									43	A3A11A3A9MP5
X1-F		B083 F SHAFT, SHOULDERED: SAME AS B054	EA	1									43	A3A11A3A9MP6
P--F		B084 * SETSCREW: SMB338766-1; (80063)	EA	1	*	*	1	*	*	1	8	3	43	A3A11A3A9H1
X2-F		B085 E SHIELD: SMD446669; (80063)	EA	1									42	A3A11A3MP10
X2-F		B086 * SCREW, MACHINE: SAME AS B038	EA	2									42	A3A11A3H32
P--F	5960-264-3004	B087 E SHIELD, ELECTRON TUBE: SAME AS A220	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3E51
P--F		B088 E SOCKET ASSEMBLY, ELECTRON TUBE: SMC446670; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A10
P--F	5310-176-8131	B089 * NUT, PLAIN, HEXAGON: AN340-5; (88044)	EA	2	1	2	3	1	1	1	33	20	42	A3A11A3H33
P--F	5305-849-5606	B090 * SCREW, MACHINE: AN515-5-8; (88044)	EA	2	*	1	1	*	1	1	13	6	42	A3A11A3H34
X2-F		B091 * WASHER, FLAT: SAME AS B046	EA	1									42	A3A11A3H35
X2-F		B092 * WASHER, LOCK: SAME AS A960	EA	1									42	A3A11A3H36
P--F	5325-157-8079	B093 F GROMMET, RUBBER: SMD446672; (80063)	EA	2	*	1	1	*	1	1	13	6	42	A3A11A3A10MP1
P--F	5325-157-8079	B094 F GROMMET, RUBBER: SAME AS B093	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10MP2
M--O		B095 F LEAD, ELECTRICAL: SMC446616-13; (80063)	EA	1									42	A3A11A3A10W1
X2-F		B096 F RETAINER, ELECTRON TUBE, SOCKET: SMD446673; (80063)	EA	1									42	A3A11A3A10MP3
X2-F	5960-264-7932	B097 F SHIELD, ELECTRON TUBE SOCKET: SMD446733; (80063)	EA	1									42	A3A11A3A10E1
X1-F		B098 F SOCKET, ELECTRON TUBE: SMC446676; (80063)	EA	1									42	A3A11A3A10A1TB52
P--F	5910-451-2312	B099 G CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52C51
P--F	5910-451-2312	B100 G CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A103	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52C52

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5910-823-1068	B101 G CAPACITOR, FIXED, CERAMIC DIEL: SAME AS A111	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52C54
P--F	5910-451-8313	B102 G CAPACITOR, FIXED, CERAMIC DIEL: SMD446679; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A10A1TB52C58
M--D		B103 G LEAD, ELECTRICAL: SMD446725-4; (80063)	EA	1										A3A11A3A10A1TB5W1
P--F	5905-798-1634	B104 G RESISTOR, FIXED, COMPOSITION: MS35043-152; (96906)	EA	2	*	1	1	*	1	1	13	6	42	A3A11A3A10A1TB52R51
P--F	5905-185-8518	B105 G RESISTOR, FIXED, COMPOSITION: SAME AS A148	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52R52
P--F	5905-104-8335	B106 G RESISTOR, FIXED, COMPOSITION: MS35043-137; (96906)	EA	2	*	1	1	*	1	1	13	6	42	A3A11A3A10A1TB52R53
P--F	5905-116-8558	B107 G RESISTOR, FIXED, COMPOSITION: SAME AS A152	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52R54
P--F	5905-798-1634	B108 G RESISTOR, FIXED, COMPOSITION: SAME AS B104	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52R55
P--F	5905-793-8974	B109 G RESISTOR, FIXED, COMPOSITION: MS35043-94; (96906)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A10A1TB52R56
P--F	5905-104-8335	B110 G RESISTOR, FIXED, COMPOSITION: SAME AS B106	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52R57
P--F	5905-249-3656	B111 G RESISTOR, FIXED, COMPOSITION: MS35043-130; (96906)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A10A1TB52R58
P--F	5905-192-3982	B112 G RESISTOR, FIXED, COMPOSITION: SAME AS A120	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3A10A1TB52R59
X1-F		B113 G SOCKET, ELECTRON TUBE: SMD446678; (80063)	EA	1									12	A3A11A3A10A1TB52XV5.
X2-F		B114 F SPACER, SLEEVE: SMD446671; (80063)	EA	2										A3A11A3A10MP4
X2-F		B115 F SPACER, SLEEVE: SAME AS B114	EA	REF										A3A11A3A10MP5
P--F	5360-158-0047	B116 E SPRING, HELICAL, COMPRESSION: SMB338796; (80063)	EA	1	*	*	1	*	*	1	8	3	42	A3A11A3MP11
P--H	6730-977-2751	B117 E STABILIZER ASSEMBLY: SMD446633; (80063)	EA	1				*	1	1	8	3	45	A3A11A3A11
P--F	5305-206-0170	B118 * SETSCREW: SAME AS A387	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3R37
X2-H		B119 * SETSCREW: AN565D1032L3; (88044)	EA	1									42	A3A11A3R38
X1-H		B120 F BEARING, BALL, ANNULAR: SMD446633-1; (80063)	EA	1									45	A3A11A3A11MP1
X1-H		B121 F BEARING, BALL, ANNULAR: SMD446633-2; (80063)	EA	1									45	A3A11A3A11MP2
X1-H		B122 F DRUM: SMD446638; (80063)	EA	1									45	A3A11A3A11MP3
X1-H		B123 * NUT, PLAIN, HEXAGON: SMB338752; (80053)	EA	1									45	A3A11A3A11E1
X1-H		B124 F ERASER, MAGNETIC: SMD446653; (80063)	EA	1									45	A3A11A3A11PU52
X1-H		B125 * STRAP, RETAINING: SMD446648; (80063)	EA	1									45	A3A11A3A11E2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H		H126 • SETSCREW: SMD446633-4; (80063)		EA	1									45	A3A11A3A11H3
X2-H		H127 • SETSCREW: SMD446633-5; (80063)		EA	1									45	A3A11A3A11H4
X2-H		H128 • SETSCREW: SMB446643; (80063)		EA	1									45	A3A11A3A11H5
X1-H		H129 F HEAD, SOUND REPRODUCER: SMC446644; (80063)		EA	1									45	A3A11A3A11PU51
X1-H		H130 • STRAP, RETAINING: SMD446658; (80063)		EA	1									45	A3A11A3A11H6
X2-H		H131 • SETSCREW: SAME AS H126		EA	1									45	A3A11A3A11H7
X2-H		H132 • SETSCREW: SAME AS H127		EA	1									45	A3A11A3A11H8
X2-H		H133 • SETSCREW: SAME AS H128		EA	1									45	A3A11A3A11H9
X1-H		H134 F HOLDER, OPTICAL ELEMENT: SMB338750; (80063)		EA	1									45	A3A11A3A11MP4
X1-H		H135 • BRACKET, PRISM HOLDER: SMB338748; (80063)		EA	1									45	A3A11A3A11H10
X2-H	5305-151-3555	H136 • SCREW, MACHINE: AN515-2-8; (88044)		EA	4									45	A3A11A3A11H11
X1-H		H137 F HOUSING: SMD446641; (80063)		EA	1									45	A3A11A3A11MP5
X2-H		H138 F LATCH: SMB446639; (80063)		EA	1									45	A3A11A3A11MP6
X2-H		H139 • SCREW, SHOULDER: SMB446640; (80063)		EA	1									45	A3A11A3A11H12
X2-H		H140 F NUT, EXTENDED WASHER, HEXAGON: SMB446635; (80063)		EA	1									45	A3A11A3A11MP7
X2-H		H141 F NUT, PLAIN, HEXAGON: SMD446633-3; (80063)		EA	1									45	A3A11A3A11H13
X2-H		H142 F PLATE ASSEMBLY: SMB446649; (80063)		EA	2									45	A3A11A3A11A1
X2-H		H143 F PLATE ASSEMBLY: SAME AS H142		EA	REF									45	A3A11A3A11A2
X2-H		H144 • SCREW, MACHINE: SMB446645; (80063)		EA	4									45	A3A11A3A11H14
X2-H		H145 • SCREW, SHOULDER: SMB446646; (80063)		EA	2									45	A3A11A3A11H15
X2-H		H146 F PLATE, RETAINING SHAFT: SMB446636; (80063)		EA	1									45	A3A11A3A11MP8
X2-H	5305-151-2997	H147 • SCREW, MACHINE: AN500-3-4; (88044)		EA	3									45	A3A11A3A11H16
X1-H		H148 F PRISM, OPTICAL INSTRUMENT: SMB338749; (80063)		EA	1									45	A3A11A3A11MP9
X1-H		H149 F SHAFT, SHOULDERED: SMC446634; (80063)		EA	1									45	A3A11A3A11MP10
X1-H		H150 F SPRING, HELICAL, COMPRESSION: SMB446642; (80063)		EA	1									45	A3A11A3A11MP11

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X1-H		B151 F SPRING, LEAF: SMB446647; (80063)		EA	2									45	A3A11A3A11MP12
X1-H		B152 F SPRING, LEAF: SAME AS B151		EA	REF									45	A3A11A3A11MP13
X1-H		B153 F WASHER, SPRING, TENSION: SMB446637; (80063)		EA	1									45	A3A11A3A11MP14
A--F		B154 E TRANSFORMER ASSEMBLY, POWER, HVU: SMB446660; (80063)		EA	1									42	A3A11A3A12
P--F	5310-610-0461	B155 * NUT, PLAIN, HEXAGON: SAME AS A023		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	42	A3A11A3H39
P--F	5305-889-3116	B156 * SCREW, MACHINE: MS35206-213; (96906)		EA	2	*	1	1	*	1	1	13	6	42	A3A11A3H40
M--D		B157 F LEAD, ELECTRICAL: SAME AS A187		EA	3										A3A11A3A12W1
M--D		B158 F LEAD, ELECTRICAL: SMB446660-1; (80063)		EA	1										A3A11A3A12W2
M--D		B159 F LEAD, ELECTRICAL: SMB446725-3; (80063)		EA	4										A3A11A3A12W3
P--F	5950-473-2585	B160 F TRANSFORMER, POWER, STEP-UP: SMB446661; (80063)		EA	1	*	*	1	*	*	1	8	3	42	A3A11A3A12T51
M--D		B161 E WIRING HARNESS: SMC446704; (80063)		EA	1									42	A3A11A3W51
M--D		B162 F CABLE ASSEMBLY, RADIO FREQUENCY: SMB446705; (80063)		EA	1									42	A3A11A3W51A1
X2-F	5975-713-5091	B163 * TIE, CABLE: SMC446704-1; (80063)		EA	7									42	A3A11A3W51E1
M--D		B164 F CABLE ASSEMBLY, RADIO FREQUENCY: SMB446706; (80063)		EA	1									42	A3A11A3W51A2
M--D		B165 G CABLE ASSEMBLY, RADIO FREQUENCY: SMB446707; (80063)		EA	1										A3A11A3W51A2W1
P--F	5935-283-8303	B166 F CONNECTOR, PLUG, ELECTRICAL: SMB338699; (80063)		EA	1	*	1	1	*	1	1	13	6	42	A3A11A3W51P55
M--D		B167 F LEAD, ELECTRICAL: SMB338931-6; (80063)		EA	1									42	A3A11A3W51W1
M--D		B168 F LEAD, ELECTRICAL: SMB338931-7; (80063)		EA	1									42	A3A11A3W51W2
M--D		B169 F LEAD, ELECTRICAL: SMB338931-8; (80063)		EA	1									42	A3A11A3W51W3
M--D		B170 F LEAD, ELECTRICAL: SMB446709; (80063)		EA	1									42	A3A11A3W51W4
P--O	5355-351-4448	B171 D KNOB: SMB338646; (80063)		EA	1	*	*	1	*	*	1	8	3	26	A3A11MP1
P--O	5305-206-9528	B172 * SETSCREW: AN565D8L2; (88044)		EA	1	*	*	1	*	*	1	8	3	26	A3A11H5
P--F	6210-228-0419	B173 D LAMPHOLDER: SMB339008; (80063)		EA	1	*	1	2	*	1	1	18	9	48	A3A11XDS102
M--D		B174 * BRACKET, DOUBLE: SAME AS A655		EA	1									48	A3A11H6
X2-F		B175 * SCREW, MACHINE: SMD446626-1; (80063)		EA	2									48	A3A11H7

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-193-7577	B176 • WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11H8
X2-F		B177 • NUT, HEXAGON: SMD446626-2; (80063)		EA	2									48	A3A11H9
M--D		B178 D LEAD, ELECTRICAL: SMB338678; (80063)		EA	3										A3A11W1
X2-F	5305-151-2763	B179 • SCREW, MACHINE: SAME AS A691		EA	1										A3A11H10
X2-F	5310-167-0662	B180 • WASHER, LOCK: SAME AS A694		EA	1										A3A11H11
M--D		B181 D LEAD, ELECTRICAL: SAME AS B178		EA	REF										A3A11W2
X2-F	5305-151-2763	B182 • SCREW, MACHINE: SAME AS A691		EA	1										A3A11H12
X2-F	5310-167-0662	B183 • WASHER, LOCK: SAME AS A694		EA	1										A3A11H13
M--D		B184 D LEAD, ELECTRICAL: SAME AS B178		EA	REF										A3A11W3
P--F	5305-614-0245	B185 • SCREW, MACHINE: MS35256-64; (96906)		EA	1	•	•	1	•	•	1	8	3	26	A3A11H14
X2-F	5310-576-5752	B186 • WASHER, LOCK: SAME AS A693		EA	1										A3A11H15
P--F	6105-670-0174	B187 D MOTOR ASSEMBLY, ALTERNATING CUR: SMD336681; (80063)		EA	1	•	•	1	•	•	1	8	3	38	A3A11B101
P--F	5305-206-2049	B188 • SCREW, MACHINE: AN520-10-16; (88044)		EA	4	1	1	2	1	1	1	27	15	26	A3A11H16
X2-F		B189 • WASHER, FLAT: SAME AS A006		EA	4									26	A3A11H17
X2-F	5310-576-5752	B190 • WASHER, LOCK: SAME AS A693		EA	4									26	A3A11H18
P--H	6105-635-3297	B191 E ARMATURE ASSEMBLY, MOTOR: SMB338720; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1
P--H	6105-811-1101	B192 F ARMATURE, MOTOR: SMC338721; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1L1
P--H	3110-144-8858	B193 F BEARING, BALL: SMB338720-2; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1MP1
P--H	3110-555-8924	B194 F BEARING, BALL: SMB338720-3; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1MP2
P--H	6730-141-8488	B195 F GEAR, HELICAL: SMB338722; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1MP3
P--H	5315-832-8297	B196 • PIN: SMB338720-1; (80063)		EA	1				•	•	1	8	3	38	A3A11B101A1H1
A--F		B197 E BRACKET ASSEMBLY: SMC338726; (80063)		EA	1									38	A3A11B101A2
X2-F		B198 • SCREW, MACHINE: MS35224-68; (96906)		EA	2									38	A3A11B101H2
X2-F		B199 • WASHER, LOCK: AN935-10; (88044)		EA	4									38	A3A11B101H3
X2-F		B200 • SCREW, MACHINE: MS35224-67; (96906)		EA	2									38	A3A11B101H4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
[illegible]		B801 F BRACKET: SMC338727; (80063)		EA	1									38	A3A11B101A2MP5
[illegible]	[illegible]	B802 F BUSHING: SMB338726; (80063)		EA	4	1	1	2	1	1	1	27	13	38	A3A11B101A2MP1
[illegible]	[illegible]	B803 F BUSHING: SAME AS B802		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101A2MP2
[illegible]	[illegible]	B804 F BUSHING: SAME AS B802		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101A2MP3
[illegible]	[illegible]	B805 F BUSHING: SAME AS B802		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101A2MP4
[illegible]	[illegible]	B806 F IDLER ASSEMBLY: SMB338729; (80063)		EA	1	*	*	1	*	*	1	8	3	38	A3A11B101A2A1
[illegible]		B807 * SCREW, MACHINE: SMC338726-1; (80063)		EA	2									38	A3A11B101A2H1
[illegible]		B808 * WASHER, FLAT: SMA338625; (80063)		EA	2									38	A3A11B101A2H2
[illegible]	[illegible]	B809 * WASHER, LOCK: SAME AS A007		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101A2H3
[illegible]		B810 C ARM: SMB338730; (80063)		EA	1									38	A3A11B101A2A1MP1
[illegible]		B811 C ROLLER: SMB338360; (80063)		EA	1									38	A3A11B101A2A1MP2
[illegible]	[illegible]	B812 * RING, RETAINING: SMB338729-1; (80063)		EA	1	*	*	1	*	*	1	8	3	38	A3A11B101A2A1H1
[illegible]	[illegible]	B813 E BRUSH, ELECTRICAL CONTACT: SMB338695; (80063)		EA	2	1	2	3	1	1	1	33	20	38	A3A11B101E1
[illegible]	[illegible]	B814 E BRUSH, ELECTRICAL CONTACT: SAME AS B813		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101E2
[illegible]		B815 E BRUSH, ELECTRICAL CONTACT: SMB338697; (80063)		EA	2	1	2	3	1	1	1	33	20	38	A3A11B101E3
[illegible]		B816 E BRUSH, ELECTRICAL CONTACT: SAME AS B815		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101E4
[illegible]		B817 E CABLE ASSEMBLY: SMB338723; (80063)		EA	1									38	A3A11B101W8
[illegible]		B818 * SCREW, MACHINE: MS35224-58; (96906)		EA	2									38	A3A11B101H9
[illegible]		B819 * WASHER, LOCK: AN936A10; (88044)		EA	2									38	A3A11B101H10
[illegible]		B820 F BRAID, WIRE: SMB338725; (80063)		EA	1										A3A11B101W8E1
[illegible]	[illegible]	B821 E CAP, ELECTRICAL: SMB338698; (80063)		EA	2	*	1	1	*	1	1	13	6	38	A3A11B101E5
[illegible]	[illegible]	B822 E CAP, ELECTRICAL: SAME AS B821		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101E6
[illegible]	[illegible]	B823 E CAPACITOR: SMB338875; (80063)		EA	1	*	*	1	*	*	1	8	3	38	A3A11B101C112
[illegible]	[illegible]	B824 E CAPACITOR, FIXED, PAPER DIEL: SAME AS A1A3		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101C109
[illegible]		B825 * WASHER, FLAT: SAME AS B808		EA	1									38	A3A11B101H1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		B226 * SCREW, MACHINE: MS35223-26; (96906)	EA	2									38	A3A11B101H19
X1-F		B227 * WASHER, LOCK: AN936A16; (88044)	EA	2									38	A3A11B101H20
P--F	5910-754-6099	B228 E CAPACITOR: SMB338704; (80063)	EA	2	*	1	1	*	1	1	13	6	38	A3A11B101C107
P--F	5910-754-6099	B229 E CAPACITOR: SAME AS B228	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101C108
X2-F		B230 * SCREW, MACHINE: MS36224-59; (96906)	EA	2									38	A3A11B101H21
X2-F		B231 * WASHER, LOCK: SAME AS B219	EA	2									38	A3A11B101H22
P--F	5935-283-8303	B232 E CONNECTOR, PLUG, ELECTRICAL: SAME AS B166	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101P106
A--F		B233 E GEAR ASSEMBLY, SPEED DECREASER: SMC338705; (80063)	EA	1									39	A3A11B101A3
X2-H		B234 * SCREW, MACHINE: MS35223-42; (96906)	EA	1									38	A3A11B101H5
X2-F		B235 * WASHER, LOCK: AN936A6; (88044)	EA	2									38	A3A11B101H6
X2-F		B236 * SCREW, MACHINE: SMD338681-1; (80063)	EA	8									38	A3A11B101H7
X2-F		B237 * WASHER, LOCK: MS35337-42; (96906)	EA	8									38	A3A11B101H8
P--F	6730-288-5096	B238 F COUPLING, SHAFT, FLEXIBLE: SMB338706; (80063)	EA	1	*	*	1	*	*	1	8	3	39	A3A11B101A3A1
X2-F		B239 F COVER ASSEMBLY: SMD338718; (80063)	EA	1									39	A3A11B101A3A2
P--F	5305-531-1680	B240 * SCREW, MACHINE: SMD338705-1; (80063)	EA	5	4	1	2	1	1	1	27	19	39	A3A11B101A3H1
P--F	5310-193-7577	B241 * WASHER, LOCK: SAME AS A026	EA	5	REF	REF	REF	REF	REF	REF	REF	REF	39	A3A11B101A3H2
P--F		B242 G BEARING, SLEEVE: SMB338717; (80063)	EA	1	*	1	1	*	1	1	13	6	39	A3A11B101A3A2MP1
P--F	6730-341-7818	B243 F GEARSHAFT, HELICAL: SMB338710; (80063)	EA	1	*	*	1	*	*	1	8	3	39	A3A11B101A3A3
X1-F		B244 G GEAR, HELICAL: SMB338712; (80063)	EA	1									39	A3A11B101A3A3MP1
X2-F		B245 * PIN: SMB338710-1; (80063)	EA	1									39	A3A11B101A3A3H1
X1-F		B246 G SHAFT: SMB338711; (80063)	EA	1									39	A3A11B101A3A3MP2
X2-F		B247 F HOUSING, MECHANICAL DRIVE: SMB338715; (80063)	EA	1									39	A3A11B101A3A4
P--F		B248 G BEARING, SLEEVE: SAME AS B242	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	39	A3A11B101A3A4MP1
P--F	6730-206-4733	B249 F SPROCKET WHEEL: SMB338707; (80063)	EA	1	*	*	1	*	*	1	8	3	39	A3A11B101A3MP1
P--F	5365-832-8141	B250 F WASHER, FLAT: SMB338709; (80063)	EA	1	*	1	2	*	1	1	18	9	39	A3A11B101A3MP2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5330-832-8068	B251 F WASHER, NONMETALLIC: SMB338636; (80063)		EA	1	*	*	1	*	*	1	8	3	39	A3A11B101A3MP3
P--F	5310-832-8139	B252 F WASHER, NONMETALLIC: SMB338708; (80063)		EA	1	*	*	1	*	*	1	8	3	39	A3A11B101A3MP4
P--F	6110-351-8996	B253 E GOVERNOR: SMC338700; (80063)		EA	1	*	*	1	*	*	1	8	3	38	A3A11B101S106
P--H	5977-240-1492	B254 E HOLDER, ELECTRICAL CONTACT BRUSH: SMB338694; (80063)		EA	2				*	1	1	13	6	38	A3A11B101E7
P--H	5977-240-1492	B255 E HOLDER, ELECTRICAL CONTACT BRUSH: SAME AS B254		EA	REF				REF	REF	REF	REF	REF	38	A3A11B101E8
P--H	5977-991-0067	B256 E HOLDER, ELECTRICAL CONTACT BRUSH: SMB338696; (80063)		EA	2				*	1	1	13	6	38	A3A11B101E9
P--H	5977-991-0067	B257 E HOLDER, ELECTRICAL CONTACT BRUSH: SAME AS B256		EA	REF				REF	REF	REF	REF	REF	38	A3A11B101E10
X2-F		B258 E HOUSING, ELEC, ROTATING EQPT: SMC338682; (80063)		EA	1									38	A3A11B101MP1
X2-F		B259 * SETSCREW: AP565D8L4; (88044)		EA	2									38	A3A11B101H13
X2-H		B260 * SETSCREW: AP565A8L3; (88044)		EA	2									38	A3A11B101H14
X2-F		B261 E HOUSING, ELEC, ROTATING EQPT: SMC338683; (80063)		EA	1									38	A3A11B101MP2
X2-F		B262 * SCREW, MACHINE: MS35223-30; (96906)		EA	2									38	A3A11B101H15
X2-F		B263 * WASHER, LOCK: MS35335-30; (96906)		EA	2									38	A3A11B101H16
N--D		B264 E LEAD, ELECTRICAL: SMB338685; (80063)		EA	1										A3A11B101W1
N--D		B265 E LEAD, ELECTRICAL: SMB338686; (80063)		EA	1										A3A11B101W2
N--D		B266 E LEAD, ELECTRICAL: SMB338687; (80063)		EA	1										A3A11B101W3
N--D		B267 E LEAD, ELECTRICAL: SMB338688; (80063)		EA	1										A3A11B101W4
N--D		B268 E LEAD, ELECTRICAL: SMB338689; (80063)		EA	1										A3A11B101W5
N--D		B269 E LEAD, ELECTRICAL: SMB338690; (80063)		EA	1										A3A11B101W6
P--F		B270 E RESISTOR, FIXED, WIRE WOUND: SMB338703; (80063)		EA	1	*	*	1	*	*	1	8	3	38	A3A11B101R105
X2-F		B271 * SCREW, MACHINE: SAME AS B236		EA	2									38	A3A11B101H21
X2-F		B272 * WASHER, LOCK: MS35335-36; (96906)		EA	2									38	A3A11B101H22
X1-F		B273 E STATOR, MOTOR: SMC338693; (80063)		EA	1									38	A3A11B101L101
X2-F		B274 * SCREW, MACHINE: SMB338684; (80063)		EA	2									38	A3A11B101H17
X2-F		B275 * WASHER, LOCK: SAME AS B235		EA	2									38	A3A11B101H18

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE — USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		B276 E TIE, CABLE: SMD338681-2; (80063)	EA	2										A3A11B101MP3
P--F	5310-322-4529	B277 E WASHER, SPRING TENSION: SMB338692; (80063)	EA	2	*	1	1	*	1	1	13	6	38	A3A11B101MP4
P--F	5310-322-4529	B278 E WASHER, SPRING TENSION: SAME AS B277	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	38	A3A11B101MP5
A--F-H		B279 D PLATE ASSEMBLY, FRONT, MECHANISM: SMD338341; (80063)	EA	1									25	A3A11A5
P--H	5305-989-7434	B280 * SCREW, MACHINE: MS35207-263; (96906)	EA	3				*	1	1	18	9		A3A11H19
X2-F	5310-576-5752	B281 * WASHER, LOCK: SAME AS A693	EA	6										A3A11H20
X2-H		B282 E ARM: SMB338619; (80063)	EA	1									26	A3A11A5MP1
X2-F		B283 * SCREW, MACHINE: SMD338341-15; (80063)	EA	1									26	A3A11A5H1
X2-F		B284 E ARM ASSEMBLY, LOOP SETTER, REAR: SMB338425; (80063)	EA	1									49	A3A11A5A1
P--F	5305-687-3285	B285 * SETSCREW: SMD338341-2; (80063)	EA	2	1	1	2	1	1	1	27	15	49	A3A11A5H2
X2-F		B286 E BAR ASSEMBLY: SMB338445; (80063)	EA	1									50	A3A11A5A2
P--F	5310-524-0171	B287 * NUT, PLAIN, HEXAGON: SMD338341-7; (80063)	EA	1	*	*	1	*	*	1	8	3	33	A3A11A5H3
X2-F		B288 F FRAMER BAR: SMB338446; (80063)	EA	1									50	A3A11A5A2MP1
X2-F		B289 F STUD, SHOULDERED AND STEPPED: SMB338447; (80063)	EA	1									50	A3A11A5A2MP2
X2-F		B290 * SETSCREW: SMB338445-1; (80063)	EA	1									50	A3A11A5A2H1
M--D		B291 E BEARING, SLEEVE: SMB338608; (80063)	EA	1									49	A3A11A5MP2
P--F	6730-618-2479	B292 E BEARING, SLEEVE: SMB338621; (80063)	EA	1	*	1	1	*	1	1	13	6	48	A3A11A5MP3
P--F	5305-059-3660	B293 * SCREW, MACHINE: MS51958-64; (96906)	EA	1	*	*	1	*		1	8	3	48	A3A11A5H4
M--D		B294 E BRACKET, ANGLE: SMB338603; (80063)	EA	1									49	A3A11A5MP4
P--F	5305-639-2224	B295 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5H5
P--F	5310-193-7577	B296 * WASHER, LOCK: SAME AS A026	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5H6
P--F	6730-356-6934	B297 E BRACKET ASSEMBLY, APERTURE MOUNT: SMB338394; (80063)	EA	1	*	*	1	*	*	1	8	3	50	A3A11A5A3
P--F	5305-523-2226	B298 * SCREW, SHOULDER: SMB338641; (80063)	EA	2	*	1	1	*	1	1	13	6	50	A3A11A5H7
P--F		B299 * WASHER, FLAT: SMB338632; (80063)	EA	2	*	1	1	*	1	1	13	6	50	A3A11A5H8
X2-F	5310-167-0662	B300 * WASHER, LOCK: SAME AS A694	EA	2									50	A3A11A5H9

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	6730-356-6995	B301 E BRACKET ASSEMBLY, DRIVE SHAFT: SMB338422; (80063)	EA	1	*	*	1	*	*	1	8	3	50	A3A11A5A4
P--F	5305-622-1509	B302 * SCREW, MACHINE: MS35224-63; (96906)	EA	2	*	1	1	*	1	1	13	6	50	A3A11A5H10
X2-F	5310-576-5752	B303 * WASHER, LOCK: SAME AS A693	EA	2									50	A3A11A5H11
X1-F		B304 F BEARING: SMB338424; (80063)	EA	1									50	A3A11A5A4MP1
X2-F		B305 E BRACKET, DOUBLE ANGLE: SMB338604; (80063)	EA	1									48	A3A11A5MP5
P--F	5305-525-1687	B306 * SCREW, EXTERNALLY RELIEVED BODY: SMB338640; (80063)	EA	2	*	1	1	*	1	1	13	6	48	A3A11A5H14
P--F	5310-193-7577	B307 * WASHER, LOCK: SAME AS A026	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5H15
X2-F		B308 E BRACKET, DOUBLE ANGLE: SMB338605; (80063)	EA	1									50	A3A11A5MP6
X2-F		B309 * SCREW, MACHINE: SMD338341-16; (80063)	EA	3									50	A3A11A5H16
X2-F		B310 * WASHER, LOCK: AN936A2; (88044)	EA	3									50	A3A11A5H17
P--F	6730-078-4599	B311 E BUTTON: SMB338612; (80063)	EA	1	*	*	1	*	*	1	8	3	25	A3A11A5MP7
P--F	3020-088-3557	B312 E CHAIN, ROLLER: SMB338642; (80063)	EA	1	*	*	1	*	*	1	8	3	48	A3A11A5MP8
X2-F		B313 E COLLAR, SHAFT: SMB338606; (80063)	EA	1									50	A3A11A5MP9
P--F	5305-206-9508	B314 * SETSCREW: SMD338341-8; (80063)	EA	3	2	3	6	1	1	2	65	45	50	A3A11A5H18
X2-F		B315 E COLLAR, SHAFT: SMB338607; (80063)	EA	1									50	A3A11A5MP10
P--F	5305-687-3285	B316 * SETSCREW: SAME AS B285	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	50	A3A11A5H19
P--H	6680-527-6043	B317 E COUNTER, ROTATING, FIXED MTG: SMB338618; (80063)	EA	1				*	*	1	8	3	26	A3A11A5MP11
P--H	5305-531-1080	B318 * SCREW, MACHINE: SMD338341-4; (80063)	EA	2				*	1	1	13	6	26	A3A11A5H20
P--H	5310-193-7577	B319 * WASHER, LOCK: SAME AS A026	EA	2				*	1	1	13	6		A3A11A5H74
P--F	6730-356-6900	B320 E COUNTERWEIGHT: SMB338616; (80063)	EA	1	*	*	1	*	*	1	8	3	33	A3A11A5MP12
X2-F		B321 E COVER ASSEMBLY, SHUTTER: SMC338413; (80063)	EA	1									33	A3A11A5A5
P--F	5305-639-2224	B322 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	33	A3A11A5H21
P--F	5310-193-7577	B323 * WASHER, LOCK: SAME AS A026	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	33	A3A11A5H22
X2-F		B324 F PLATE: SMB338415; (80063)	EA	1									33	A3A11A5A5MP1
M--D		B325 F PLATE, IDENTIFICATION: SMB338416; (80063)	EA	1									33	A3A11A5A5MP2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5310-176-0131	B326 * NUT, PLAIN, HEXAGON: SAME AS B069		EA	4	REF	REF	REF	REF	REF	REF	REF	REF	33	A3A11A5A5H1
X2-F		B327 * SCREW: SMB359179; (80063)		EA	4									33	A3A11A5A5H2
X2-F	5310-264-1337	B328 * WASHER, LOCK: SAME AS A777		EA	4									33	A3A11A5A5H3
M--D		B329 F PLATE, IDENTIFICATION: SMC338421; (80063)		EA	1									33	A3A11A5A5MP3
X2-F		B330 * PIN: SMC338413-1; (80063)		EA	4									33	A3A11A5A5H4
X2-F		B331 F SEAT: SMD338419; (80063)		EA	1									33	A3A11A5A5MP4
X2-F		B332 F SHIELD, LOWER: SMB338418; (80063)		EA	1									33	A3A11A5A5MP5
X2-F		B333 * PIN: SAME AS B330		EA	4									33	A3A11A5A5H5
X2-F		B334 F SHIELD, UPPER: SMD338417; (80063)		EA	1									33	A3A11A5A5MP6
X2-F		B335 * PIN: SAME AS B330		EA	2										A3A11A5A5H6
P--F	5305-208-1859	B336 * SCREW, DRIVE: AN535-00-4; (88044)		EA	2	*	1	1	*	1	1	13	6	33	A3A11A5A5H7
M--D		B337 * SPACER, SLEEVE: SMB338420; (80063)		EA	2									33	A3A11A5A5H8
X2-F		B338 E COVER ASSEMBLY, SHUTTLE: SMB338547; (80063)		EA	1									33	A3A11A5A6
P--F	5305-984-6199	B339 * SCREW, MACHINE: MS35206-251; (96906)		EA	1	*	*	1	*	*	1	8	3	33	A3A11A5H23
P--F	5305-958-6381	B340 * SCREW, MACHINE: MS35206-208; (96906)		EA	3	*	1	2	*	1	1	18	9	33	A3A11A5H24
P--F	5310-579-9554	B341 * WASHER, LOCK: MS35333-35; (96906)		EA	3	*	1	2	*	1	1	18	9	33	A3A11A5H25
M--D		B342 F FELT, MECHANICAL, PREFORMED: SMB338549; (80063)		EA	1									33	A3A11A5A6MP1
M--D		B343 F FELT, MECHANICAL, PREFORMED: SMB338550; (80063)		EA	1									33	A3A11A5A6MP2
X2-H		B344 E COVER, GEAR MECHANISM: SMD338635; (80063)		EA	1									49	A3A11A5MP13
X2-F	5305-984-4988	B345 * SCREW, MACHINE: SAME AS A329		EA	4									49	A3A11A5H26
P--H	5305-543-2188	B346 * SCREW, MACHINE: MS35223-32; (96906)		EA	2				*	1	1	13	6	49	A3A11A5H27
X2-F	5310-579-0079	B347 * WASHER, LOCK: SAME AS A011		EA	6									49	A3A11A5H28
P--F	6730-356-4859	B348 E DISC: SMD338617; (80063)		EA	1	*	*	1	*	*	1	8	3	33	A3A11A5MP14
P--H	6730-351-4148	B349 E GASKET: SMC338634; (80063)		EA	1				*	*	1	8	3	49	A3A11A5MP15
P--F	6680-398-5781	B350 E GEAR ASSEMBLY, SPEED INCREASER: SMD338448; (80063)		EA	1	*	*	1	*	*	1	8	3	26	A3A11A5A7

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5305-984-4983	B351 * SCREW, MACHINE: MS35206-226; (96906)	EA	1	*	1	1	*	1	1	13	6	26	A3A11A5H29
X2-F	5310-579-0079	B352 * WASHER, LOCK: SAME AS A011	EA	1									26	A3A11A5H30
X1-F		B353 F ARM ASSEMBLY, RACHET: SMB338476; (80063)	EA	1									36	A3A11A5A7A1
X1-F		B354 F CAM AND GEAR ASSEMBLY: SMB338473; (80063)	EA	1									36	A3A11A5A7A2
X2-F	5340-063-3233	B355 * RING, RETAINING: SMD338448-4; (80063)	EA	1									36	A3A11A5A7H1
X1-F		B356 F COVER: SMB338452; (80063)	EA	1									36	A3A11A5A7MP1
X2-F	5305-151-3565	B357 * SCREW, MACHINE: SAME AS A987	EA	1									36	A3A11A5A7H2
X2-F		B358 * WASHER, LOCK: SAME AS A988	EA	1									36	A3A11A5A7H3
X1-F		B359 F DISC, DRIVE: SMB338485; (80063)	EA	1									36	A3A11A5A7A3
X2-F		B360 * SETSCREW: SMD338448-2; (80063)	EA	1									36	A3A11A5A7H7
X1-F		B361 F GEAR, WORM WHEEL: SMB338450; (80063)	EA	1									36	A3A11A5A7MP2
X2-F		B362 * SETSCREW: SAME AS B360	EA	1									36	A3A11A5A7H4
X1-F		B363 F HOUSING ASSEMBLY, COUNTER DRIVE: SMC338457; (80063)	EA	1									36	A3A11A5A7A4
X2-F		B364 G HOUSING: SMC338458; (80063)	EA	1									36	A3A11A5A7A4MP1
X1-F		B365 G PAWL: SMB338459; (80063)	EA	1									36	A3A11A5A7A4MP2
X1-F		B366 G PIVOT: SMB338460; (80063)	EA	1									36	A3A11A5A7A4MP3
X1-F		B367 G SPACER, SLEEVE: SMB338463; (80063)	EA	1									36	A3A11A5A7A4MP4
X1-F		B368 G SPRING, HELICAL TORSION: SMB338464; (80063)	EA	1									36	A3A11A5A7A4MP5
X1-F		B369 G STUD: SMB338461; (80063)	EA	1									36	A3A11A5A7A4MP6
X1-F		B370 F PLATE ASSEMBLY, GEAR TRAIN: SMC338465; (80063)	EA	1									36	A3A11A5A7A5
X2-F	5305-550-0405	B371 * SCREW, MACHINE: AN500-5-4; (88044)	EA	4									36	A3A11A5A7H5
X2-F		B372 * WASHER, LOCK: SMD338448-5; (80063)	EA	4									36	A3A11A5A7H6
X2-F	3120-661-7642	B373 G BEARING, SHOULDERED: SMB338469; (80063)	EA	1									36	A3A11A5A7A5MP1
X2-F		B374 G HUB, PINION: SMB338470; (80063)	EA	1									36	A3A11A5A7A5MP2
X2-F		B375 G PINION: SMC338465-1; (80063)	EA	1									36	A3A11A5A7A5MP3

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
XD-F		8376 G PLATE: SMD338466; (80063)		EA	1									36	A3A11A5A7A5MP4
XD-F		8377 G STUD: SMD338467; (80063)		EA	1									36	A3A11A5A7A5MP5
XD-F		8378 G WASHER: SMD338468; (80063)		EA	1									36	A3A11A5A7A5MP6
X1-F		8379 F RACHET WHEEL: SMD338480; (80063)		EA	1									36	A3A11A5A7A6
XD-F	5340-100-8681	8380 F RING, RETAINING: SMD338448-3; (80063)		EA	1									36	A3A11A5A7W6
X1-F		8381 F SHAFT, STRAIGHT: SMD338431; (80063)		EA	1									36	A3A11A5A7MP3
XD-F		8382 * RING, RETAINING: SMD338449-1; (80063)		EA	2									36	A3A11A5A7W8
XD-F		8383 F SPRING, HELICAL, EXTENSION: SMD338453; (80063)		EA	1									36	A3A11A5A7MP4
XD-F	5310-167-0820	8384 F WASHER, FLAT: AN960-516; (88044)		EA	2									36	A3A11A5A7MP5
XD-F		8385 F WASHER, FLAT: SMD338456; (80063)		EA	1									36	A3A11A5A7MP6
XD-F		8386 F WASHER, FLAT: SMD338423-3; (80063)		EA	1									36	A3A11A5A7MP7
XD-F		8387 F WASHER, NONMETALLIC: SMD338455; (80063)		EA	1									36	A3A11A5A7MP8
XD-F		8388 F WASHER, NONMETALLIC: SMD338449; (80063)		EA	1									36	A3A11A5A7MP9
P--H	6730-356-6916	8389 H GEAR, CLUSTER, HELICAL: SMC338346; (80063)		EA	1				*	*	1	8	3	49	A3A11A5A8
P--H	5365-157-8076	8390 * RING, RETAINING: SMD338341-11; (80063)		EA	1				*	*	1	8	3	49	A3A11A5H31
XD-F		8391 * WASHER, FLAT: SAME AS 8385		EA	1									49	A3A11A5H32
P--H	6730-356-6917	8392 H GEAR, CLUSTER, HELICAL: SMC338405; (80063)		EA	1				*	*	1	8	3	50	A3A11A5A9
P--F	5305-719-5360	8393 * SETSCREW: SAME AS A460		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	50	A3A11A5H33
P--H	5305-695-1607	8394 * WASHER, PLAIN: SMD338430; (80063)		EA	1				*	*	1	8	3	50	A3A11A5H34
P--H	6730-356-6915	8395 H GEAR, HELICAL: SMC338342; (80063)		EA	1				*	*	1	8	3	49	A3A11A5A10
P--H	5365-089-0980	8396 * RING, RETAINING: SMD338341-12; (80063)		EA	1				*	*	1	8	3	49	A3A11A5H35
P--H	6730-356-6960	8397 * STUD: SMD338581; (80063)		EA	1				*	*	1	8	3	49	A3A11A5H36
X1-H		8398 F BEARING, SLEEVE: SMD338345; (80063)		EA	1									49	A3A11A5A10MP1
P--H	6730-353-8995	8399 H GEAR, HELICAL: SMD338364; (80063)		EA	1				*	*	1	8	3	50	A3A11A5A11
P--F	5305-719-5360	8400 * SETSCREW: SAME AS A460		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	50	A3A11A5H37

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--H	6730-391-5312	B401 E GEAR, HELICAL: SMB338399; (80063)		EA	1				*	*	1	8	3	50	A3A11A5A12
P--H		B402 * SCREW, MACHINE: SMD338341-1; (80063)		EA	1				*	*	1	8	3	50	A3A11A5H38
P--H		B403 * WASHER, LOCK: SMD338341-10; (80063)		EA	1				*	*	1	8	3	50	A3A11A5H39
P--H	6730-306-2348	B404 * RING: SMB338454; (80063)		EA	1				*	*	1	8	3	50	A3A11A5H40
P--H	6730-251-0952	B405 E GEAR, HELICAL: SMB338402; (80063)		EA	1				*	*	1	8	3	50	A3A11A5A13
P--F	5305-006-9508	B406 * SETSCREW: SAME AS B314		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	50	A3A11A5H41
P--H	6730-351-8994	B407 E GEARSHAFT, HELICAL: SMD338350; (80063)		EA	1	*	*	1	*	*	1	8	3	49	A3A11A5A14
X1-H		B408 F GEAR, HELICAL: SMD338352; (80063)		EA	1									49	A3A11A5A14MP1
X2-H		B409 * PIN: SMB338350-1; (80063)		EA	1									49	A3A11A5A14H1
X1-H		B410 F SHAFT, SHOULDERED: SMB338351; (80063)		EA	1									49	A3A11A5A14MP2
P--H	6730-251-0951	B411 E GEARSHAFT, HELICAL: SMB338355; (80063)		EA	1				*	*	1	8	3	49	A3A11A5A15
X1-H		B412 F GEAR, HELICAL: SMB338356; (80063)		EA	1									49	A3A11A5A15MP1
X2-H		B413 * PIN: SMB338355-1; (80063)		EA	1									49	A3A11A5A15H1
X1-H		B414 F SHAFT, SHOULDERED: SAME AS B410		EA	1									49	A3A11A5A15MP2
P--H	6730-341-7816	B415 E GEARSHAFT, HELICAL: SMB338357; (80063)		EA	1				*	*	1	8	3	49	A3A11A5A16
X1-H		B416 F GEAR, HELICAL: SAME AS B412		EA	1									49	A3A11A5A16MP1
X2-H		B417 * PIN: SMB338357-1; (80063)		EA	1									49	A3A11A5A16H1
X1-H		B418 F SHAFT, SHOULDERED: SMB338358; (80063)		EA	1									49	A3A11A5A16MP2
X2-H		B419 E HOLDER ASSEMBLY, LENS: SMB338370; (80063)		EA	1										A3A11A5A17
P--F	6730-141-8188	B420 F GEAR RACK: SMB338372; (80063)		EA	1	*	*	1	*	*	1	8	3	25	A3A11A5A17MP1
P--F	5305-619-5572	B421 * SCREW, MACHINE: SMB338373; (80063)		EA	2	*	1	1	*	1	1	13	6	25	A3A11A5A17H1
X2-F		B422 F HOLDER, LENS: SMC338371; (80063)		EA	1									25	A3A11A5A17MP2
P--O	5305-341-7865	B423 F THUMBSCREW: SMB338374; (80063)		EA	1	*	*	1	*	*	1	8	3	25	A3A11A5A17A1
P--F	6730-341-7828	B424 E IDLER ASSEMBLY: SMB338359; (80063)		EA	1	*	*	1	*	*	1	8	3	48	A3A11A5A18
P--F	5305-638-3358	B425 * SCREW, MACHINE: MS35223-45; (96906)		EA	2	*	1	1	*	1	1	13	6	48	A3A11A5H46

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
XD-F		BA26 * WASHER, FLAT: SAME AS B008	EA	2									48	A3A11A5H47
P--F	5310-559-0070	BA27 * WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5H48
X1-F		BA28 F ARM, IDLER: SMB338361; (80063)	EA	1									48	A3A11A5A18MP1
X1-F		BA29 F ROLLER: SAME AS B011	EA	1									48	A3A11A5A18MP2
P--F	5365-157-8054	BA30 * RING, RETAINING: SMB338359-1; (80063)	EA	1	*	*	1	*	*	1	8	3	48	A3A11A5A18H1
XD-F		BA31 E IDLER ASSEMBLY, FLOATING: SMB338385; (80063)	EA	1									49	A3A11A5A19
XD-F		BA32 * SCREW, MACHINE: SAME AS B056	EA	1									49	A3A11A5H49
XD-F		BA33 F ARM ASSEMBLY, FLOATING IDLER: SMB338387; (80063)	EA	1									49	A3A11A5A19A1
P--F	6730-356-6958	BA34 F ROLLER, LINEAR-ROTARY MOTION: SMB338391; (80063)	EA	1	1	1	2	1	1	1	27	15	49	A3A11A5A19A2
XD-F		BA35 * SCREW, MACHINE: SAME AS B056	EA	1									49	A3A11A5A19H1
X1-F		BA36 G BEARING, SLEEVE: SMB338393; (80063)	EA	2									49	A3A11A5A19A2MP1
P--F	6730-356-6958	BA37 F ROLLER, LINEAR-ROTARY MOTION: SAME AS BA34	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5A19A3
XD-F		BA38 * SCREW, MACHINE: SAME AS B056	EA	1									42	A3A11A5A19H2
X1-F		BA39 G BEARING, SLEEVE: SAME AS BA36	EA	2									49	A3A11A5A19A3MP1
P--O		BA40 E KNOB: SMB338614; (80063)	EA	1	*	*	1	*	*	1	8	3	33	A3A11A5MP16
P--O		BA41 * SETSCREW: SMB338341-9; (80063)	EA	4	1	1	2	1	1	1	27	15	33	A3A11A5H50
XD-O		BA42 E LENS ASSEMBLY, PROJECTION: SMC338488; (80063)	EA	1									25	A3A11A5A20
XD-F		BA43 F BRACKET: SMC338489; (80063)	EA	1									32	A3A11A5A20MP1
P--F	6760-351-8998	BA44 F LENS, OPTICAL INSTRUMENT: SMB338493; (80063)	EA	1	*	*	1	*	*	1	8	3	32	A3A11A5A20MP2
P--F	6760-998-8364	BA45 F LENS, OPTICAL INSTRUMENT: SMB338494; (80063)	EA	1	*	*	1	*	*	1	8	3	32	A3A11A5A20MP3
P--F	5365-301-5987	BA46 * CLIP, RETAINING: SMB338490; (80063)	EA	1	*	*	1	*	*	1	8	3	32	A3A11A5A20H1
P--F		BA47 * SPRING: SMB446716; (80063)	EA	1	*	*	1	*	*	1	8	3	32	A3A11A5A20H3
XD-F		BA48 F LEVER, LOCK-RELEASE: SMB338492; (80063)	EA	1									32	A3A11A5A20MP4
P--F	5305-328-4578	BA49 * SCREW, SHOULDER: SMB338496; (80063)	EA	2	*	1	1	*	1	1	13	6	32	A3A11A5A20H2
P--F	6730-351-4908	BA50 F SPRING, HELICAL, COMPRESSION: SMB338495; (80063)	EA	1	*	*	1	*	*	1	8	3	32	A3A11A5A20MP5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F		B451 B LEVER, MANUAL CONTROL: SMB338611; (80063)		EA	1									49	A3A11A5MP17
X2-F		B452 * SCREW, MACHINE: SAME AS B056		EA	1										A3A11A5H75
X2-F		B453 B LOOP SETTER ASSEMBLY: SMC338377; (80063)		EA	1									49	A3A11A5A21
X2-F		B454 F KNOB: SMB338379; (80063)		EA	1									49	A3A11A5A21MP1
X2-H		B455 F LOOP SETTER: SMC338380; (80063)		EA	1									49	A3A11A5A21A1
X2-F		B456 F ROLLER, LINEAR-ROTARY MOTION: SMB338378; (80063)		EA	1									49	A3A11A5A21MP2
P--H	6730-356-6930	B457 B MOUNT, RESILIENT: SMB338643; (80063)		EA	2				1	1	1	87	15	49	A3A11A5MP18
P--H	6730-356-6930	B458 B MOUNT, RESILIENT: SAME AS B457		EA	REF				REF	REF	REF	REF	REF	49	A3A11A5MP19
P--F		B459 * SETSCREW: SAME AS B441		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5H51
A--F		B460 B MOUNTING ASSEMBLY: SMD338497; (80063)		EA	1									47	A3A11A5A22
P--F	5305-639-2224	B461 * SCREW, MACHINE: SAME AS A956		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A5H52
P--F	5310-193-7577	B462 * WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A5H53
X2-F		B463 F ARM: SMB338510; (80063)		EA	1									47	A3A11A5A22MP1
P--F	5310-275-2080	B464 * NUT, SELF-LOCKING, HEXAGON: MS20364D1032A; (96906)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22H1
P--F	6730-341-7840	B465 F GEARSHAFT, SPUR: SMB338512; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP2
P--F	6760-392-9877	B466 F HOLDER ASSEMBLY, PRESSURE PLATE: SMC338514; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22A1
P--F	5355-323-6091	B467 F KNOB: SMB338503; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP3
P--O	5355-667-9399	B468 F KNOB: SMB338504; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP4
P--O		B469 * WASHER, SPRING, TENSION: SAME AS A669		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22H8
P--O	5305-487-3885	B470 * SETSCREW: SMD338497-1; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22H2
X2-F		B471 F MOUNT, LENS: SMD338498; (80063)		EA	1									47	A3A11A5A22MP5
X2-F		B472 F PIN, DRIVE, GUIDED: SMB338502; (80063)		EA	1									47	A3A11A5A22MP6
X2-F		B473 F PLATE: SMB338501; (80063)		EA	1									47	A3A11A5A22MP7
X2-F		B474 * SCREW, MACHINE: SMB338513-1; (80063)		EA	2									47	A3A11A5A22H3
P--F	5310-193-7577	B475 * WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	47	A3A11A5A22H4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
M--D		B476 F RAIL: SMB338499; (80063)		EA	1									47	A3A11A5A22MP8
XD-F		B477 * SCREW, MACHINE: SAME AS B474		EA	2									47	A3A11A5A22H5
P--F	5310-193-7577	B478 * WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	47	A3A11A5A22H6
M--D		B479 F RAIL: SMB338500; (80063)		EA	1									47	A3A11A5A22MP9
XD-F		B480 * SCREW, MACHINE: SMB338513-2; (80063)		EA	2									47	A3A11A5A22H7
P--F	6730-392-9009	B481 F ROD: SMB338506; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP10
M--D		B482 F SPACER, SLEEVE: SMB338509; (80063)		EA	1									47	A3A11A5A22MP11
P--F	6730-341-7879	B483 F SPRING, FLAT: SMB338511; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP12
P--F	6730-597-9834	B484 F SPRING, HELICAL, COMPRESSION: SMB338507; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP13
P--F	6730-597-9831	B485 F SPRING, HELICAL, COMPRESSION: SMB338508; (80063)		EA	1	*	*	1	*	*	1	8	3	47	A3A11A5A22MP14
XD-F		B486 E NUT, PLAIN, HEXAGON: SMD338341-13; (80063)		EA	1									50	A3A11A5MP20
P--F	5310-638-4172	B487 E NUT, SPECIAL PURPOSE: SMB338633; (80063)		EA	1	*	*	1	*	*	1	8	3	33	A3A11A5A23
P--F	6730-356-6991	B488 E PLATE: SMB338609; (80063)		EA	3	*	1	2	*	1	1	18	9		A3A11A5MP21
P--F	6730-356-6991	B489 E PLATE: SAME AS B488		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A5MP22
P--F	6730-356-6991	B490 E PLATE: SAME AS B488		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A5MP23
XD-F		B491 * SCREW, MACHINE: SAME AS B309		EA	3										A3A11A5H54
XD-F		B492 * WASHER, LOCK: SAME AS B310		EA	3										A3A11A5H55
M--D		B493 E PLATE: SMD446717; (80063)		EA	1									50	A3A11A5MP24
P--H	6730-672-9898	B494 E PLATE ASSEMBLY: SMC338540; (80063)		EA	1				*	*	1	8	3	50	A3A11A5A24
P--H	5305-619-1156	B495 * SCREW, MACHINE: MS35239-9; (96906)		EA	3				*	1	1	18	9	50	A3A11A5H56
X1-H		B496 F BRACKET, ANGLE: SMB338542; (80063)		EA	1									50	A3A11A5A24MP1
X1-H		B497 * RIVET: SMC338540-1; (80063)		EA	1									50	A3A11A5A24H1
P--D	6730-356-6867	B498 E PLATE ASSEMBLY, APERTURE: SMC338527; (80063)		EA	1	*	*	1	*	*	1	8	3	25	A3A11A5A25
P--F	6730-671-5854	B499 F PLATE, APERTURE: SCC351467; (80063)		EA	1	*	*	1	*	*	1	8	3	29	A3A11A5A25A1
P--F	6730-537-9461	B500 F RAIL, FILM: SMC338537; (80063)		EA	1	*	*	1	*	*	1	8	3	29	A3A11A5A25A2

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5305-545-0305	B501 • SCREW, SHOULDER: SMB338532; (80063)		EA	2	•	1	1	•	1	1	13	6	29	A3A11A5A25H1
P--F	5340-597-1322	B502 • WASHER, FLAT: SMB338533; (80063)		EA	2	•	1	1	•	1	1	13	6	29	A3A11A5A25H2
P--F	6730-341-7855	B503 F RAIL, FLOATING FILM: SMC338535; (80063)		EA	1	•	•	1	•	•	1	8	3	29	A3A11A5A25A3
P--F	5305-638-2845	B504 • SCREW, EXTERNALLY RELEIVED BODY: SMB338534; (80063)		EA	2	•	1	1	•	1	1	13	6	29	A3A11A5A25H3
P--F	53600341-7885	B505 F SPRING, SPRIAL TORSION: SMB338531; (80063)		EA	1	•	•	1	•	•	1	8	3	29	A3A11A5A25MP1
P--O	6730-763-2164	B506 E PLATE ASSEMBLY, PRESSURE: SMC338518; (80063)		EA	1	•	•	1	•	•	1	8	3	25	A3A11A5A26
P--O		B507 F CLIP: SMC338519; (80063)		EA	1	•	•	1	•	•	1	8	3	30	A3A11A5A26MP5
P--O		B508 F PLATE: SMC338520; (80063)		EA	1	•	•	1	•	•	1	8	3	30	A3A11A5A26MP6
X1-O		B509 F PIN, GROOVED, HEADLESS: SMB338523; (80063)		EA	2									30	A3A11A5A26MP1
X1-O		B510 F PIN, GROOVED, HEADLESS: SAME AS B509		EA	REF									30	A3A11A5A26MP2
X1-O		B511 F SPRING, HELICAL, COMPRESSION: SMB338524; (80063)		EA	2									30	A3A11A5A26MP3
X1-O		B512 F SPRING, HELICAL, COMPRESSION: SAME AS B511		EA	REF									30	A3A11A5A26MP4
X1-O		B513 • RING, RETAINING: SMC338518-1; (80063)		EA	2									30	A3A11A5A26H1
M--D		B514 • PLATE: SMB338610; (80063)		EA	1									25	A3A11A5H43
P--F	5305-639-2224	B515 • SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A5H44
P--F	5310-193-7577	B516 • WASHER, LOCK: SAME AS A026		EA	2	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A5H45
X2-F		B517 E PLATE AND INSERT ASSEMBLY: SMD338574; (80063)		EA	1									50	A3A11A5A27
P--H	3110-156-7707	B518 F BEARING, ROLLER, NEEDLE: B47-04; (60380)		EA	4				1	1	1	27	15	48	A3A11A5A27MP1
P--H	3110-156-7707	B519 F BEARING, ROLLER, NEEDLE: SAME AS B518		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP2
P--H	3110-156-7707	B520 F BEARING, ROLLER, NEEDLE: SAME AS B518		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP3
P--H	3110-156-7707	B521 F BEARING, ROLLER, NEEDLE: SAME AS B518		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP4
P--H		B522 F BEARING, SLEEVE: SMB338576; (80063)		EA	8				1	1	1	40	25	48	A3A11A5A27MP5
P--H		B523 F BEARING, SLEEVE: SAME AS B522		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP6
P--H		B524 F BEARING, SLEEVE: SAME AS B522		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP7
P--H		B525 F BEARING, SLEEVE: SAME AS B522		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP8

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--H		B526 F BEARING, SLEEVE: SAME AS B522	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP9
P--H		B527 F BEARING, SLEEVE: SAME AS B522	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP10
P--H		B528 F BEARING, SLEEVE: SAME AS B522	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP11
P--H		B529 F BEARING, SLEEVE: SAME AS B522	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5A27MP12
P--H	3120-716-5659	B530 F BEARING, SLEEVE: SMB338577; (80063)	EA	2				•	1	1	13	6	48	A3A11A5A27MP13
P--H	3120-716-5659	B531 F BEARING, SLEEVE: SAME AS B530	EA	REF				REF	REF	REF	REF	REF	48	A3A11A5A27MP14
P--H		B532 F BEARING, SLEEVE: SMB338580; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP15
P--H	3120-662-8322	B533 F BEARING, SLEEVE: SMB338581; (80063)	EA	2				•	1	1	13	6	49	A3A11A5A27MP16
P--H	3120-662-8322	B534 F BEARING, SLEEVE: SAME AS B533	EA	REF				REF	REF	REF	REF	REF	49	A3A11A5A27MP17
P--H	3120-223-1151	B535 F BEARING, SLEEVE: SMB338583; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP18
P--H		B536 F BEARING, SLEEVE: SMB338584; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP19
P--H		B537 F BEARING, SLEEVE: SMB446724; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP20
P--H	6730-936-5464	B538 F BUSHING: SMB338586; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP21
X2-H		B539 F PIN, DOWEL: SMB338578; (80063)	EA	1									50	A3A11A5A27MP22
P--H	6730-936-2328	B540 F PLUG: SMB338585; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A27MP23
X2-H		B541 F STUD: SMB338579; (80063)	EA	1									50	A3A11A5A27MP24
P--F	6730-677-7523	B542 E PULLEY, GROOVE: SMC338554GR1; (80063)	EA	1	•	•	1	•	•	1	8	3	48	A3A11A5A28
X2-F	3110-151-9132	B543 F BALL, BEARING: SMB338560; (80063)	EA	3									51	A3A11A5A28MP1
X2-F		B544 F BEARING, BALL: SMC338554-3; (80063)	EA	1									51	A3A11A5A28MP2
P--F	6730-955-2839	B545 F CAM, CONTROL: SMB338556; (80063)	EA	1	•	1	1	•	1	1	13	6	51	A3A11A5A28MP3
X1-F		B546 F PULLEY, GROOVE: SMB338555; (80063)	EA	1									51	A3A11A5A28MP4
P--F		B547 F RETAINER, BALL: SMB338557; (80063)	EA	1	•	1	1	•	1	1	13	6	51	A3A11A5A28MP5
X1-F		B548 F SHAFT, TAKEUP AND REWIND: SMB338561; (80063)	EA	1									51	A3A11A5A28A1
P--F	5310-523-2179	B549 • NUT, SELF-LOCKING, HEXAGON: SMC338554-4; (80063)	EA	1	•	1	1	•	1	1	13	6	51	A3A11A5A28H1
P--F	5310-275-3587	B550 • WASHER, SHOULDERED: SMB338558; (80063)	EA	1	•	1	1	•	1	1	13	6	51	A3A11A5A28H2

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X1-F		B551 F SPRING, HELICAL, COMPRESSION: SMB338559; (80063)	EA	1									51	A3A11A5A28MP6
P--F	6730-955-2835	B552 E PULLEY, GROOVE: SMC338554GRII; (80063)	EA	1	•	•	1	•	•	1	8	3	48	A3A11A5A29
X2-F	3110-151-9132	B553 F BALL, BEARING: SAME AS B543	EA	3									51	A3A11A5A29MP1
X2-F		B554 F BEARING, BALL: SAME AS B544	EA	1									51	A3A11A5A29MP2
P--F	6730-991-7763	B555 F CAM, CONTROL: SAME AS B545	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	51	A3A11A5A29MP3
X1-F		B556 F PULLEY, GROOVE: SAME AS B546	EA	1									51	A3A11A5A29MP4
P--F	6730-955-2839	B557 F RETAINER, BALL: SAME AS B547	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	51	A3A11A5A29MP5
X1-F		B558 F SHAFT, TAKEUP AND REWIND: SAME AS B548	EA	1									51	A3A11A5A29A1
P--F	5310-523-2179	B559 • NUT, SELF-LOCKING, HEXAGON: SAME AS B549	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	51	A3A11A5A29H1
P--F	5310-275-3587	B560 • WASHER, SHOULDERED: SAME AS B550	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	51	A3A11A5A29H2
X1-F		B561 F SPRING, HELICAL, COMPRESSION: SAME AS B551	EA	1									51	A3A11A5A29MP6
P--F	6730-618-6465	B562 E PULLEY, GROOVE: SMB338622; (80063)	EA	1	•	1	1	•	1	1	13	6	48	A3A11A5MP25
P--F	6730-356-6925	B563 E ROD: SMB338613; (80063)	EA	1	•	•	1	•	•	1	8	3	48	A3A11A5MP26
X2-F		B564 E SETSCREW: AN565A6L6; (88044)	EA	1									50	A3A11A5MP27
P--F	6730-425-6062	B565 E SHAFT ASSEMBLY, FRONT CAM: SMB338428; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5A30
X2-F		B566 • SETSCREW: SMD338341-14; (80063)	EA	1									50	A3A11A5H57
P--F	5315-832-8089	B567 F PIN, STRAIGHT, HEADLESS: SMB338430; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5A30MP1
P--F	6730-356-6977	B568 E SHAFT ASSEMBLY, REAR CAM: SMB338367; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5A31
P--F	5310-081-8087	B569 • NUT, SELF-LOCKING, HEXAGON: SAME AS A399	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	33	A3A11A5H58
P--F	6730-466-0924	B570 E SHAFT, SHOULDERED: SMB338596; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5MP28
P--F	6730-356-6974	B571 E SHAFT, SHOULDERED: SMB338597; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5MP29
P--F	6730-356-6979	B572 E SHOE ASSEMBLY, FILM: SMC338439; (80063)	EA	1	•	1	2	•	1	1	18	9	31	A3A11A5A32
P--F	5305-639-2224	B573 • SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	31	A3A11A5H59
X2-F	5310-551-7770	B574 • WASHER, LOCK: SAME AS A058	EA	2									31	A3A11A5H60
X1-F		B575 F BRACKET: SMB338441; (80063)	EA	1									31	A3A11A5A32MP1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X1-F		B576 F PLUNGER, DETENT: SMB338442; (80063)	EA	1									31	A3A11A5A32MP2
X1-F		B577 * SCREW, EXTERNALLY RELIEVED BODY: SMB338444; (80063)	EA	2									31	A3A11A5A32H1
X1-F		B578 F SHOE: SMC339159; (80063)	EA	1									31	A3A11A5A32MP3
X1-F		B579 F SPRING, HELICAL, COMPRESSION: SMB338443; (80063)	EA	1									31	A3A11A5A32MP4
P--F	6730-356-6979	B580 E SHOE ASSEMBLY, FILM: SAME AS B572	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	31	A3A11A5A33
P--F	5305-639-2224	B581 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A5H61
X2-F	5310-551-7770	B582 * WASHER, LOCK: SAME AS A058	EA	8										A3A11A5H62
X1-F		B583 F BRACKET: SAME AS B575	EA	1									31	A3A11A5A33MP1
X1-F		B584 F PLUNGER, DETENT: SAME AS B576	EA	1									31	A3A11A5A33MP2
X1-F		B585 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS B577	EA	2									31	A3A11A5A33H1
X1-F		B586 F SHOE: SAME AS B578	EA	1									31	A3A11A5A33MP3
X1-F		B587 F SPRING, HELICAL, COMPRESSION: SAME AS B579	EA	1									31	A3A11A5A33MP4
P--F	6730-356-6979	B588 E SHOE ASSEMBLY, FILM: SAME AS B572	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	31	A3A11A5A34
P--F	5305-639-2224	B589 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS A956	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A5H63
X2-F	5310-551-7770	B590 * WASHER, LOCK: SAME AS A058	EA	2										A3A11A5H64
X1-F		B591 F BRACKET: SAME AS B575	EA	1									31	A3A11A5A34MP1
X1-F		B592 F PLUNGER, DETENT: SAME AS B576	EA	1									31	A3A11A5A34MP2
X1-F		B593 * SCREW, EXTERNALLY RELIEVED BODY: SAME AS B577	EA	2									31	A3A11A5A34H1
X1-F		B594 F SHOE: SAME AS B578	EA	1									31	A3A11A5A34MP3
X1-F		B595 F SPRING, HELICAL, COMPRESSION: SAME AS B579	EA	1									31	A3A11A5A34MP4
A--H		B596 E SHUTTER ASSEMBLY, FREQUENCY: SMB338409; (80063)	EA	1									50	A3A11A5A35
P--H	6730-356-6970	B597 F SHAFT: SMB338411; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A35MP1
P--H	5305-545-8426	B598 * SCREW, EXTERNALLY RELIEVED BODY: SMB338412; (80063)	EA	3				•	1	1	18	9	50	A3A11A5A35A1
P--H	6730-341-7873	B599 F SHUTTER: SMB338410; (80063)	EA	1				•	•	1	8	3	50	A3A11A5A35MP2
P--F	6730-341-7874	B600 E SHUTTLE, CAMS AND PIVOR ASSY: SMC338564; (80063) "Shuttle and cam parts (item 28,fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced."	EA	1	•	•	1	•	•	1	8	3	33	A3A11A5A36

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5305-893-6221	B601 • SCREW, SHOULDER: SMB338638; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5H65
P--F	6730-336-9165	B602 • WASHER, FLAT: SMB338628; (80063)	EA	1	•	•	1	•	•	1	8	3	50	A3A11A5H66
X2-F		B603 • WASHER, SPRING TENSION: SMB338631; (80063)	EA	1									50	A3A11A5H67
X1-F		B604 F BUSHING, SLEEVE: SMB338567; (80063) "Shuttle and cam parts (item 28,fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874.If one of the parts is worn or damaged, the complete kit must be replaced."	EA	1									33	A3A11A5A36MP1
X1-F		B605 F CAM CONTROL: SMB338565; (80063) "Shuttle and cam parts (item 28,fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced."	EA	1									33	A3A11A5A36MP2
X1-F		B606 F CAM, CONTROL: SMB338570; (80063) "Shuttle and cam parts (item 28, fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced.	EA	1									33	A3A11A5A36MP3
X1-F		B607 F SHUTTLE: SMC338571; (80063) "Shuttle and cam parts (item 28, fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced.	EA	1									33	A3A11A5A36A1
X1-F		B608 F SPACER, SLEEVE: SMB338569; (80063) "Shuttle and cam parts (item 28, fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced.	EA	1									33	A3A11A5A36MP4
X1-F		B609 F WASHER, FLAT: SMB338566; (80063) "Shuttle and cam parts (item 28, fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7d74. If one of the parts is worn or damaged, the complete kit must be replaced.	EA	1									33	A3A11A5A36MP5
X1-F		B610 F WASHER, FLAT: SMB338568; (80063) "Shuttle and cam parts (item 28, fig. 33) are supplied as shuttle kit assy. FSN 6730-341-7874. If one of the parts is worn or damaged, the complete kit must be replaced.	EA	1									33	A3A11A5A36MP6
A--F		B611 E SLACK ASSEMBLY, FILM: SMC338431; (80063)	EA	1									52	A3A11A5A37
X2-F		B612 • SCREW, MACHINE: SMD338341-3; (80063)	EA	3									49	A3A11A5H68
P--F	5310-193-7577	B613 • WASHER, LOCK: SAME AS A026	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5H69
P--F	6730-356-6923	B614 F COLLAR: SMB338434; (80063)	EA	1	•	•	1	•	•	1	8	3	52	A3A11A5A37MP1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F		B615 F COLLAR, SHAFT: SMB338435; (80063)	EA	1	*	*	1	*	*	1	8	3	52	A3A11A5A37MP2
X2-F		B616 * SCREW, MACHINE: SMC338431-1; (80063)	EA	1									52	A3A11A5A37H1
X2-F		B617 * SETSCREW: SMC338431-3; (80063)	EA	1									52	A3A11A5A37H2
X2-F		B618 F HOUSING: SMC338432; (80063)	EA	1									52	A3A11A5A37MP3
P--F	6730-351-9003	B619 F PIN: SMB338438; (80063)	EA	1	1	1	2	1	1	1	27	15	52	A3A11A5A37MP4
X2-F		B620 F ROD: SMB338433; (80063)	EA	1									52	A3A11A5A37MP5
P--F	5315-151-9051	B621 * PIN, ROLL: SMC338431-2; (80063)	EA	1	*	*	1	*	*	1	8	3	52	A3A11A5A37H3
P--F	5360-158-0018	B622 F SPRING, HELICAL, COMPRESSION: SMB338436; (80063)	EA	1	*	*	1	*	*	1	8	3	52	A3A11A5A37MP6
P--F	6730-265-6282	B623 F SPRING, HELICAL, COMPRESSION: SMB338437; (80063)	EA	1	*	*	1	*	*	1	8	3	52	A3A11A5A37MP7
M--D		B624 E SPACER, SLEEVE: SMB338620; (80063)	EA	1									25	A3A11A5MP30
M--D		B625 E SPACER, SLEEVE: SMB338629; (80063)	EA	1									33	A3A11A5MP31
M--D		B626 E SPACER, SLEEVE: SMB338644; (80063)	EA	2									49	A3A11A5MP32
M--D		B627 E SPACER, SLEEVE: SAME AS B626	EA	REF									49	A3A11A5MP33
P--F	6730-597-8284	B628 E SPRING, HELICAL, COMPRESSION: SMB338600; (80063)	EA	1	*	*	1	*	*	1	8	3	25	A3A11A5MP34
P--F	6730-351-4897	B629 E SPRING, HELICAL, EXTENSION: SMB338598; (80063)	EA	1	*	*	1	*	*	1	8	3	33	A3A11A5MP35
P--F	6730-205-4613	B630 E SPRING, HELICAL, EXTENSION: SMB338599; (80063)	EA	1	*	*	1	*	*	1	8	3	49	A3A11A5MP36
P--F	6730-597-9489	B631 E SPRING, HELICAL, EXTENSION: SMB338601; (80063)	EA	1	*	*	1	*	*	1	8	3	49	A3A11A5MP37
P--F	6730-356-6988	B632 E SPROCKET, WHEEL: SMB338592; (80063)	EA	2	*	1	1	*	1	1	13	6	48	A3A11A5MP38
P--F	6730-356-6988	B633 E SPROCKET, WHEEL: SAME AS B632	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5MP39
P--F	5305-206-9528	B634 * SETSCREW: SAME AS B314	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5H70
P--F	6730-204-4513	B635 E SPROCKET, WHEEL: SMB338593; (80063)	EA	1	*	*	1	*	*	1	8	3	48	A3A11A5MP40
P--F	5305-206-9528	B636 * SETSCREW: SAME AS B314	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5H71
P--F	6730-356-6986	B637 E SPROCKET, WHEEL: SMB338594; (80063)	EA	1	*	*	1	*	*	1	8	3	24	A3A11A5MP41
P--F	5305-206-9528	B638 * SETSCREW: SAME AS B314	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	24	A3A11A5H72
P--F	6730-341-7886	B639 E SPROCKET, WHEEL: SMC338595; (80063)	EA	3	*	1	2	*	1	1	18	9	49	A3A11A5MP42

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	6730-341-7886	B640 E SPROCKET, WHEEL: SAME AS B639		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5MP43
P--F	6730-341-7886	B641 E SPROCKET, WHEEL: SAME AS B639		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5MP44
P--F	5305-206-9528	B642 • SETSCREW: SAME AS B314		EA	6	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5H73
X2-F	6730-938-1694	B643 E STOP: SMB338615; (80063)		EA	3									49	A3A11A5MP45
X2-F	6730-938-1694	B644 E STOP: SAME AS B643		EA	REF									49	A3A11A5MP46
X2-F	6730-938-1694	B645 E STOP: SAME AS B643		EA	REF									49	A3A11A5MP47
P--F	6730-356-6992	B646 E STUD: SMB338588; (80063)		EA	2	•	1	1	•	1	1	13	6	49	A3A11A5MP48
P--F	6730-356-6992	B647 E STUD: SAME AS B646		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	49	A3A11A5MP49
P--F	6730-356-6944	B648 E STUD: SMB338589; (80063)		EA	1	•	•	1	•	•	1	8	3	49	A3A11A5MP50
P--F	5305-604-6800	B649 E STUD: SMB338590; (80063)		EA	2	•	1	1	•	1	1	13	6	26	A3A11A5MP51
P--F	5305-604-6800	B650 E STUD: SAME AS B649		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	26	A3A11A5MP52
P--F	6730-671-5851	B651 E STUD ASSEMBLY, DOUBLE IDLERGEAR: SMB338551; (80063)		EA	1	•	•	1	•	•	1	8	3	49	A3A11A5A38
X1-F		B652 F WICK: SMB338553; (80063)		EA	1									49	A3A11A5A3[illegible]MP1
P--F	5365-832-8141	B653 E WASHER, FLAT: SAME AS B250		EA	• 2	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A5H42
X2-F		B654 E WASHER, FLAT: SMB338623-1; (80063)		EA	AR									50	A3A11A5MP53
X2-F		B655 E WASHER, FLAT: SMB338623-2; (80063)		EA	AR									50	A3A11A5MP54
X2-F		B656 E WASHER, FLAT: SAME AS B386		EA	1									50	A3A11A5MP55
X2-F		B657 E WASHER, FLAT: SMB338623-4; (80063)		EA	AR									50	A3A11A5MP56
P--F	5340-595-7987	B658 E WASHER, FLAT: SMB338624-1; (80063)		EA	AR									50	A3A11A5MP57
P--F		B659 E WASHER, FLAT: SMB338624-2; (80063)		EA	AR									50	A3A11A5MP58
P--F	5340-637-3549	B660 E WASHER, FLAT: SMB338624-3; (80063)		EA	AR									50	A3A11A5MP59
P--F	5340-595-7955	B661 E WASHER, FLAT: SMB338624-4; (80063)		EA	AR									50	A3A11A5MP60
P--F	5310-286-7221	B662 E WASHER, NONMETALLIC: SMB338626; (80063)		EA	AR									50	A3A11A5MP61
P--F		B663 E WASHER, NONMETALLIC: SMB338627; (80063)		EA	4	1	1	2	1	1	1	27	15	24	A3A11A5MP62
P--F		B664 E WASHER, NONMETALLIC: SAME AS B663		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	24	A3A11A5MP63

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F		B665 E WASHER, NONMETALLIC: SAME AS B663		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	24	A3A11A5MP64
P--F		B666 E WASHER, NONMETALLIC: SAME AS B663		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	24	A3A11A5MP65
P--F	5340-837-8456	B667 E WASHER, THRUST: SMB338602; (80063)		EA	4	1	1	2	1	1	1	27	15	48	A3A11A5MP66
P--F	5340-837-8456	B668 E WASHER, THRUST: SAME AS B667		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5MP67
P--F	5340-837-8456	B669 E WASHER, THRUST: SAME AS B667		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5MP68
P--F	5340-837-8456	B670 E WASHER, THRUST: SAME AS B667		EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	48	A3A11A5MP69
P--F	6730-950-7556	B671 E WICK: SMB446718; (80063)		EA	1	*	*	1	*	*	1	8	3	50	A3A11A5MP70
P--F	6730-950-7546	B672 E WICK: SMB446719; (80063)		EA	1	*	*	1	*	*	1	8	3	50	A3A11A5MP71
X2-F		B673 D PLATE ASSEMBLY, REAR MECHANISM: SMDA46627; (80063)		EA	1									26	A3A11A6
P--F	6730-618-2479	B674 E BEARING, SLEEVE: SAME AS B292		EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A6MP1
X2-F		B675 E GUARD: SMB338803; (80063)		EA	1									25	A3A11A6MP2
M--D		B676 E LEAD, ELECTRICAL: SAME AS B178		EA	1									26.1	A3A11A6W1
X2-F	5305-151-2763	B677 * SCREW, MACHINE: SAME AS A691		EA	1									26.1	A3A11A6H1
X2-F		B678 * SCREW, MACHINE: SMDA46627-1; (80063)		EA	1									26.1	A3A11A6H2
P--F	5310-194-1483	B679 * WASHER, LOCK: MS35333-10; (96906)		EA	1	*	*	1	*	*	1	8	3	26.1	A3A11A6H3
P--F	5310-058-2951	B680 * WASHER, LOCK: MS35337-81; (96906)		EA	1	*	*	1	*	*	1	8	3	26.1	A3A11A6H4
M--D		B681 F BRAID, WIRE: SMB338680; (80063)		EA	1									26.1	A3A11A6W1E1
P--H	6730-356-6930	B682 E MOUNT, RESILIENT: SAME AS B457		EA	1				REF	REF	REF	REF	REF	26.1	A3A11A6MP3
X2-F		B683 * SETSCREW: SAME AS B259		EA	1									26.1	A3A11A6H5
P--H	6730-356-6930	B684 E MOUNT, RESILIENT: SAME AS B457		EA	1				REF	REF	REF	REF	REF	26.1	A3A11A6MP4
X2-F		B685 * SETSCREW: SAME AS B259		EA	1									26.1	A3A11A6H6
X2-F		B686 E PLATE, REAR SECTION MECHANISM: SMDA46628; (80063)		EA	1									26.1	A3A11A6MP5
P--F		B687 E PULLEY, GROOVE: SAME AS B562		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	26.1	A3A11A6MP6
X2-F		B688 * SCREW, MACHINE: MS35217-36; (96906)		EA	1									26.1	A3A11A6H7
P--F	6730-562-1279	B689 E REFLECTOR ASSEMBLY, LIGHT: SMC338805; (80063)		EA	1	*	*	1	*	*	1	8	3	25	A3A11A6MP7

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SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5305-206-0514	B690 SCREW, MACHINE: AN515-5-5; (88044)	*	EA	2	*	1	2	*	1	1	18	9	25	A3A11A6H8
X2-F		B691 WASHER, LOCK: SAME AS A960	*	EA	2									25	A3A11A6H9
X1-F		B692 BRACKET: SMC338806; (80063)	F	EA	1									25	A3A11A6MP7MP3
P--F		B693 REFLECTOR: SMB338807; (80063)	F	EA	1	*	*	1	*	*	1	8	3	25	A3A11A6MP7MP2
P--F		B694 RING, RETAINING: SMB338808; (80063)	F	EA	1	*	*	1	*	*	1	8	3	25	A3A11A6MP7MP1
P--F	6730-356-6958	B695 ROLLER, LINEAR-ROTARY MOTION: SAME AS B434	E	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A6A1
X2-F		B696 SCREW, MACHINE: SAME AS B056	*	EA	2									25	A3A11A6H10
X1-F		B697 BEARING, SLEEVE: SAME AS B436	F	EA	1										A3A11A6A1MP1
P--F	6730-356-6958	B698 ROLLER, LINEAR-ROTARY MOTION: SAME AS B434	E	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		A3A11A6A2
X2-F		B699 SCREW, MACHINE: SAME AS B056	*	EA	1										A3A11A6H12
X1-F		B700 BEARING, SLEEVE: SAME AS B436	F	EA	1										A3A11A6A2MP1
P--F	6730-356-6971	B701 SHAFT: SMB338804; (80063)	E	EA	2	*	1	1	*	1	1	13	6	25	A3A11A6MP9
P--F	6730-356-6971	B702 SHAFT: SAME AS B701	E	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	25	A3A11A6MP8
N--D		B703 SPACER, SLEEVE: SAME AS B626	E	EA	2									26.1	A3A11A6MP10
A--F		B704 PLATE, SWITCH: SMD446617; (80063)	C	EA	1									24	A3A12
P--F	5305-144-3913	B705 SCREW, MACHINE: SAME AS A362	*	EA	6	REF	REF	REF	REF	REF	REF	REF	REF	24	A3H37
X2-F	5310-579-0079	B706 WASHER, FLAT: SAME AS A011	*	EA	6									24	A3H38
N--D		B707 BRACKET, DOUBLE ANGLE: SAME AS A655	D	EA	1									37	A3A12MP1
X2-F		B708 NUT, PLAIN, HEXAGON: SMD446617-2; (80063)	*	EA	1									37	A3A12H1
X2-F		B709 NUT, PLAIN, HEXAGON: SMD446617-3; (80063)	*	EA	1									37	A3A12H2
P--F	5305-514-8004	B710 SCREW, MACHINE: SAME AS A360	*	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12H3
X2-F		B711 SCREW, MACHINE: SMD446617-5; (80063)	*	EA	1									37	A3A12H4
P--F	5310-193-7577	B712 WASHER, LOCK: SAME AS A026	*	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12H5
X2-F	5310-579-0079	B713 WASHER, LOCK: SAME AS A011	*	EA	2									37	A3A12H6
P--F	6730-936-5463	B714 CABLE ASSEMBLY, SP, ELECTRICAL: SMB338992; (80063)	D	EA	1	*	*	1	*	*	1	8	3	3	A3A12W108

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X1-F		B715 E CABLE ASSEMBLY, SP, ELECTRICAL: SMD338993; (80063)	EA	1									37	A3A12W102W1
P--F		B716 D FILTER ASSEMBLY, RADIO INTRF: SMC339012; (80063)	EA	1	*	*	1	*	*	1	8	3	24	A3A12A1
X1-F		B717 E BOX, JUNCTION: SMC339015; (80063)	EA	1									24	A3A12A1A1
X1-F		B718 * NUT, PLAIN, PLATE: SMC339012-1; (80063)	EA	4									24	A3A12A1E1
X1-F		B719 * SCREW, MACHINE: SAME AS B026	EA	4									24	A3A12A1E2
X1-F	5310-579-0079	B720 * WASHER, LOCK: SAME AS A011	EA	4									24	A3A12A1E3
X1-F		B721 E FILTER, RADIO INTERFERENCE: SMC339014; (80063)	EA	1									24	A3A12A1FL101
M--D		B722 E LEAD, ELECTRICAL: SMD339013-1; (80063)	EA	1									24	A3A12A1W1
M--D		B723 E LEAD, ELECTRICAL: SMD339013-2; (80063)	EA	1									24	A3A12A1W2
X2-F		B724 D HOUSING, SWITCH PLATE: SMD446625; (80063)	EA	1									37	A3A12MP2
M--D		B725 D INSULATION SLEEVING, ELECTRICAL: SMD446617-8; (80063)	EA	2										A3A12E1
M--D		B726 D INSULATION SLEEVING, ELECTRICAL: SAME AS B725	EA	REF										A3A12E2
M--D		B727 D INSULATOR, PLATE: SMD339003; (80063)	EA	1									37	A3A12MP3
P--O	5930-799-8975	B728 D KNOB: SMD339007; (80063)	EA	1	*	*	1	*	*	1	8	3	37	A3A12MP4
P--O	5305-206-0514	B729 * SCREW, MACHINE: SAME AS B690	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12H18
P--O	6240-143-3049	B730 D LAMP, INCANDESCENT: SAME AS A886	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12DS101
P--F	6210-296-0419	B731 D LAMPHOLDER: SAME AS B173	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12XDS101
P--F	6210-296-0419	B732 D LAMPHOLDER: SAME AS B173	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		A3A12XDS102
M--D		B733 D LEAD, ELECTRICAL: SMD338990GR1; (80063)	EA	1										A3A12A2
M--D		B734 E LEAD, ELECTRICAL: SMC338996-2; (80063)	EA	1										A3A12A2W1
M--D		B735 D LEAD, ELECTRICAL: SMD338990GR2; (80063)	EA	1										A3A12A3
M--D		B736 E 'LEAD, ELECTRICAL: SMC338996-9; (80063)	EA	1										A3A12A3W1
M--D		B737 D LEAD, ELECTRICAL: SMD338990GR4; (80063)	EA	1										A3A12A4
M--D		B738 E LEAD, ELECTRICAL: SMC338996-13; (80063)	EA	1										A3A12A4W1
M--D		B739 D LEAD, ELECTRICAL: SMD338990GR6; (80063)	EA	1										A3A12A5

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(b) 21-50	(c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--D		B740 E LEAD, ELECTRICAL: SMC338896-4; (80063)		EA	1										A3A12A5W1
M--D		B741 D LEAD, ELECTRICAL: SMB338990GR7; (80063)		EA	1										A3A12A6
M--D		B742 E LEAD, ELECTRICAL: SMC338896-5; (80063)		EA	1										A3A12A6W1
M--D		B743 D LEAD, ELECTRICAL: SMB338990GR8; (80063)		EA	1										A3A12A7
M--D		B744 E LEAD, ELECTRICAL: SMC338896-7; (80063)		EA	1										A3A12A7W1
M--D		B745 D LEAD, ELECTRICAL: SMB338991GR1; (80063)		EA	1										A3A12A8
M--D		B746 E LEAD, ELECTRICAL: SMC338896-1; (80063)		EA	1										A3A12A8W1
M--D		B747 D LEAD, ELECTRICAL: SMB338991GR2; (80063)		EA	1										A3A12A9
M--D		B748 E LEAD, ELECTRICAL: SMC338896-8; (80063)		EA	1										A3A12A9W1
M--D		B749 D LEAD, ELECTRICAL: SMC338896; (80063)		EA	2										A3A12W1
M--D		B750 D LEAD, ELECTRICAL: SMB446603; (80063)		EA	1										A3A12A10
M--D		B751 E LEAD, ELECTRICAL: SMB446725-1; (80063)		EA	1										A3A12A10W1
M--D		B752 D LEAD, ELECTRICAL: SMB446619; (80063)		EA	1										A3A12A11
M--D		B753 E LEAD, ELECTRICAL: SMB446725-2; (80063)		EA	1										A3A12A11W1
M--D		B754 D PLATE, DESIGNATION: SMC446624; (80063)		EA	1									37	A3A12MP5
M--D		B755 D PLATE, MOUNTING, TUBE SOCKET: SMB339001; (80063)		EA	1									37	A3A12MP6
XD-F	5310-934-9747	B756 * NUT, PLAIN, HEXAGON: SAME AS A085		EA	2									37	A3A12H7
XD-F	5305-150-9776	B757 * SCREW, MACHINE: AN505-6-6; (88044)		EA	2									37	A3A12H8
XD-F	5310-579-0079	B758 * WASHER, LOCK: SAME AS A011		EA	2									37	A3A12H9
XD-F		B759 D PLUG, BUTTON: SMD446617-6; (80063)		EA	1									37	A3A12MP7
XD-F		B760 D RETAINER, ELECTRON TUBE SOCKET: SMB339000; (80063)		EA	1									37	A3A12MP8
XD-F	5310-934-9747	B761 * NUT, PLAIN, HEXAGON: SAME AS A085		EA	2									37	A3A12H10
P--F	5305-151-2105	B762 * SCREW, MACHINE: AN515-6-10; (88044)		EA	2	*	1	1	*	1	1	13	6	37	A3A12H11
M--D		B763 * SPACER, SLEEVE: SMB339004; (80063)		EA	2									37	A3A12H12
XD-F	5310-579-0079	B764 * WASHER, LOCK: SAME AS A011		EA	2									37	A3A12H13

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5935-063-5789	BT65 D SOCKET, ELECTRON TUBE: SAME AS A523		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12J104
P--F	5340-197-8810	BT66 D STRAP, RETAINING: SMB338743; (80063)		EA	1	*	*	1	*	*	1	8	3	37	A3A12MP9
X2-F		BT67 * NUT, PLAIN, HEXAGON: SAME AS BT09		EA	1									37	A3A12H21
P--F	5305-514-8004	BT68 * SCREW, MACHINE: SAME AS A360		EA	1	REF	REF	REF	REF	REF	REF	REF	REF	37	A3A12H19
X2-F	5310-579-0079	BT69 * WASHER, LOCK: SAME AS A011		EA	1									37	A3A12H20
P--F	5930-823-8108	BT70 D SWITCH, ROTARY: SMC339006; (80063)		EA	1	*	*	1	*	*	1	10	4	37	A3A12S103
P--F		BT71 * STUD: SMB339002; (80063)		EA	1	*	*	1	*	*	1	8	3	37	A3A12H14
P--F	5930-255-5749	BT72 D SWITCH, TOGGLE: AN3027-2; (88044)		EA	1	*	*	1	*	*	1	10	4	37	A3A12S102
P--F	5930-296-5782	BT73 D SWITCH, TOGGLE: SMD446623; (80063)		EA	1	*	*	1	*	*	1	10	4	37	A3A12S105
X2-F		BT74 * WASHER, KEY: SMB338999; (80063)		EA	3									37	A3A12H15
P--F	5310-905-5454	BT75 * WASHER, LOCK: MS35333-121; (96906)		EA	1	*	*	1	*	*	1	8	3	37	A3A12H16
M--D		BT76 D WIRING HARNESS: SMC446618; (80063)		EA	1									24	A3A12A12
P--F	5310-559-0070	BT77 * WASHER, LOCK: SAME AS A007		EA	12	REF	REF	REF	REF	REF	REF	REF	REF		A3A12H17
M--D		BT78 E CABLE ASSEMBLY, RADIO FREQUENCY: SMB446620; (80063)		EA	1										A3A12A12A1
M--D		BT79 F CABLE ASSEMBLY, RADIO FREQUENCY: SMB446620-2; (80063)		EA	1										A3A12A12A1W1
M--D		BT80 E CABLE ASSEMBLY, RADIO FREQUENCY: SMB446621; (80063)		EA	1										A3A12A12A2
M--D		BT81 F CABLE ASSEMBLY, RADIO FREQUENCY: SMB446621-2; (80063)		EA	1										A3A12A12A2W1
M--D		BT82 E LEAD, ELECTRICAL: SMB338989GR1; (80063)		EA	1										A3A12A12A3
M--D		BT83 F LEAD, ELECTRICAL: SMB338995-1; (80063)		EA	1										A3A12A12A3W1
M--D		BT84 E LEAD, ELECTRICAL: SMB338989GR2; (80063)		EA	1										A3A12A12A4
M--D		BT85 F LEAD, ELECTRICAL: SMB338995-2; (80063)		EA	1										A3A12A12A4W1
M--D		BT86 E LEAD, ELECTRICAL: SMB338989GR3; (80063)		EA	1										A3A12A12A5
M--D		BT87 F LEAD, ELECTRICAL: SMB338995-3; (80063)		EA	1										A3A12A12A5W1
M--D		BT88 E LEAD, ELECTRICAL: SMB338989GR4; (80063)		EA	1										A3A12A12A6
M--D		BT89 F LEAD, ELECTRICAL: SMB338995-4; (80063)		EA	1										A3A12A12A6W1

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (Continued)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 1-20	(6) (b) 21-50	(6) (c) 51-100	(7) 30-DAY GS MAINT ALLOWANCE (a) 1-20	(7) (b) 21-50	(7) (c) 51-100	(8) 1 YR ALW PER 100 EQUIP CNTGCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P--F	5975-713-5091	B790 • TIE, CABLE: SMC446618-1; (80063)	EA	6	1	2	3	1	1	1	53	35		A3A12A12MP1
A--F		B791 C RELAY ASSEMBLY, ARMATURE: SMC446608; (80063)	EA	1									26	A3A13
X2-F	5305-957-1232	B792 • SCREW, MACHINE: AN505-832R8; (88044)	EA	4									26	A3H32
P--F	5310-559-0070	B793 • WASHER, LOCK: SAME AS A007	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	26	A3H33
X2-F	•	B794 D BOX, RELAY: SMC446609; (80063)	EA	1									41	A3A13A1
P--F	5935-259-6775	B795 D CONNECTOR, PLUG, ELECTRICAL: SMB446732; (80063)	EA	1	•	•	1	•	•	1	8	3	41	A3A13J109
X2-F		B796 D COVER, RELAY BOX: SMB446613; (80063)	EA	1									41	A3A13MP1
X2-F		B797 • SCREW, MACHINE: SAME AS A902	EA	2									41	A3A13H1
X2-F	5310-579-0079	B798 • WASHER, LOCK: SAME AS A011	EA	2									41	A3A13H2
M--D		B799 D LEAD, ELECTRICAL: SMC446616; (80063)	EA	4										A3A13W1
P--F	5945-134-7224	B800 D RELAY, ARMATURE: SMB446615; (80063)	EA	1	•	•	1	•	•	1	8	3	41	A3A13K101
P--F	5305-151-1564	B801 • SCREW, MACHINE: AN515-8-10; (88044)	EA	2	•	1	1	•	1	1	13	6	41	A3A13H3
M--D		B802 • SPACER, SLEEVE: SMB446614; (80063)	EA	2									41	A3A13H4
P--F	5310-559-0070	B803 • WASHER, LOCK: SAME AS A007	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	41	A3A13H5
M--D		B804 C SPACER, PLATE: SMB339100; (80063)	EA	1									24	A3MP17
X2-F		B805 • SCREW, MACHINE: SAME AS A902	EA	4										A3H34
X2-F	5310-579-0079	B806 • WASHER, LOCK: SAME AS A011	EA	4										A3H35
P--O	6730-341-7882	B807 C SPRING, HELICAL, EXTENSION: SMB339108; (80063)	EA	3	•	1	2	•	1	1	18	9	55	A3MP18
P--O	6730-341-7882	B808 C SPRING, HELICAL, EXTENSION: SAME AS B807	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	55	A3MP19
P--O	6730-341-7882	B809 C SPRING, HELICAL, EXTENSION: SAME AS B807	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	55	A3MP20
X2-F		B810 C STRAP, RETAINING: SMB339104; (80063)	EA	1									24	A3MP21
P--F	5975-784-4591	B811 C TIE, CABLE: SMB359091; (80063)	EA	1	•	•	1	•	•	1	8	3		A3MP22
P--O	6780-768-0302	B812 B REEL, PHOTOGRAPHIC FILM: 129R16-1600; (86242)	EA	1	•	•	1	•	•	1	8	3	69	MP1

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
3030-937-5545	A653
3030-937-5546	A652
3110-144-8850	A910
3110-144-8860	A911
3110-144-8858	B193
3110-151-9132	B543
3110-151-9132	B553
3110-156-4278	A601
3110-156-4278	A630
3110-156-7707	B518
3110-156-7707	B519
3110-156-7707	B520
3110-156-7707	B521
3110-277-0141	A602
3110-277-0141	A603
3110-277-0141	A631
3110-277-0141	A632
3110-555-8924	B194
3120-287-9009	B067
3120-287-9009	B068
3120-661-7642	B373
3120-662-8322	B533
3120-662-8322	B534
5305-054-6667	A005
5305-059-3660	B293
5305-144-3913	A362
5305-144-3913	A364
5305-144-3913	B705
5305-144-3915	A450
5305-150-9776	B757
5305-151-0581	A929
5305-151-1564	B801
5305-151-2105	B762
5305-151-2763	A691
5305-151-2763	B179
5305-151-2763	B182
5305-151-2763	B677
5305-151-2997	B147
5305-151-3555	B136
5305-151-3565	A987
5305-151-3565	B357
5305-175-3223	A900
5305-206-0170	A387
5305-206-0170	B118
5305-206-0513	A339
5305-206-0513	A452
5305-206-0513	A507
5305-206-0513	A526
5305-206-0513	A546
5305-206-0513	A991
5305-206-0514	B690
5305-206-0514	B729
5305-206-0538	A959
5305-206-0540	A664
5305-208-1859	B336
5305-208-4861	A010
5305-208-4861	A016
5305-208-4861	A025
5305-208-4861	A050
5305-208-4861	A086
5305-208-4861	A090
5305-208-4861	A094
5305-208-4861	A097
5305-208-4861	A101
5305-208-4861	A162
5305-208-4861	A200
5305-208-4861	A246
5305-208-4861	A261
5305-282-9000	A978
5305-282-9000	B014
5305-322-4578	B449
5305-341-7865	B423
5305-514-8004	A360
5305-514-8004	B710
5305-514-8004	B768
5305-523-2206	B898
5305-525-1627	B306
5305-543-2188	B346
5305-545-8426	B558
5305-550-0405	B371
5305-558-4888	A024
5305-558-4889	A057
5305-558-4889	A061
5305-576-0528	A041
5305-614-0245	B185
5305-616-2529	B027
5305-616-2598	A472
5305-619-1156	B495
5305-622-1509	B302
5305-638-3313	A046
5305-638-3358	B425
5305-638-5684	A661
5305-638-5684	A907
5305-638-5684	B008
5305-639-2224	A856
5305-639-2224	B295
5305-639-2224	B322
5305-639-2224	B461
5305-639-2224	B515
5305-639-2224	B573
5305-639-2224	B581
5305-639-2224	B580
5305-660-2418	A748
5305-695-4536	A625
5305-695-4536	A650
5305-889-3001	A400
5305-889-3116	B156
5305-893-6221	B601
5305-957-1232	B792
5305-958-6381	B390
5305-984-4983	B351
5305-984-4988	A309
5305-984-4988	B345
5305-984-6191	A075
5305-984-6191	A083

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5305-984-6191	A569	5310-193-7577	A841	5310-551-7770	A058
5305-984-6199	B339	5310-193-7577	A895	5310-551-7770	B574
5305-984-6202	A924	5310-193-7577	A937	5310-551-7770	B582
5305-989-7434	B080	5310-193-7577	B061	5310-551-7770	B590
5310-011-5551	B679	5310-193-7577	B176	5310-559-0070	A007
5310-038-2951	B680	5310-193-7577	B241	5310-559-0070	A076
5310-081-8087	A399	5310-193-7577	B296	5310-559-0070	A205
5310-081-8087	A449	5310-193-7577	B307	5310-559-0070	A254
5310-081-8087	A471	5310-193-7577	B319	5310-559-0070	A266
5310-081-8087	B569	5310-193-7577	B323	5310-559-0070	A303
5310-167-0662	A694	5310-193-7577	B462	5310-559-0070	A307
5310-167-0662	B180	5310-193-7577	B475	5310-559-0070	A334
5310-167-0662	B183	5310-193-7577	B478	5310-559-0070	A573
5310-167-0662	B300	5310-193-7577	B516	5310-559-0070	A588
5310-167-0820	B384	5310-193-7577	B613	5310-559-0070	A665
5310-176-8131	B089	5310-193-7577	B712	5310-559-0070	A701
5310-176-8131	B326	5310-208-2480	A253	5310-559-0070	A742
5310-193-7577	A026	5310-208-2480	A299	5310-559-0070	A866
5310-193-7577	A062	5310-208-2480	A318	5310-559-0070	A925
5310-193-7577	A066	5310-209-1551	B036	5310-559-0070	A930
5310-193-7577	A114	5310-209-1551	B039	5310-559-0070	B047
5310-193-7577	A233	5310-264-1337	B329	5310-559-0070	B077
5310-193-7577	A237	5310-264-1337	A777	5310-559-0070	B209
5310-193-7577	A345	5310-264-1337	A796	5310-559-0070	B427
5310-193-7577	A356	5310-275-2080	B464	5310-559-0070	B777
5310-193-7577	A380	5310-291-4526	A626	5310-559-0070	B793
5310-193-7577	A384	5310-291-4526	A627	5310-559-0070	B803
5310-193-7577	A489	5310-291-4526	A651	5310-576-5752	A693
5310-193-7577	A495	5310-322-4530	A932	5310-576-5752	B186
5310-193-7577	A522	5310-323-2031	A949	5310-576-5752	B190
5310-193-7577	A532	5310-323-2031	A590	5310-576-5752	B281
5310-193-7577	A574	5310-323-2179	B549	5310-576-5752	B303
5310-193-7577	A658	5310-323-2179	B559	5310-579-0079	A011
5310-193-7577	A783	5310-324-0171	B287	5310-579-0079	A017
5310-193-7577	A789	5310-537-8156	A611	5310-579-0079	A027
5310-193-7577	A802	5310-550-1130	A350	5310-579-0079	A051
5310-193-7577	A808	5310-550-1130	A696	5310-579-0079	A087
5310-193-7577	A825	5310-550-1130	A837	5310-579-0079	A091

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5310-579-0079	A095	5310-595-7237	A551	5315-832-8089	B567
5310-579-0079	A098	5310-596-7133	A079	5320-638-2724	A013
5310-579-0079	A102	5310-610-0461	A023	5320-638-2724	A019
5310-579-0079	A163	5310-610-0461	A045	5320-855-1316	A860
5310-579-0079	A194	5310-610-0461	A056	5320-952-0566	A376
5310-579-0079	A201	5310-610-0461	A060	5325-282-8138	A160
5310-579-0079	A247	5310-610-0461	A231	5325-282-8138	A447
5310-579-0079	A258	5310-610-0461	A235	5340-063-3233	B355
5310-579-0079	A262	5310-610-0461	B155	5340-102-9621	B380
5310-579-0079	A269	5310-638-4172	B487	5340-141-6944	A279
5310-579-0079	A330	5310-832-8068	B251	5340-141-6944	A280
5310-579-0079	A340	5310-832-8139	B252	5340-143-0132	A737
5310-579-0079	A361	5310-832-8140	A488	5340-143-0132	A744
5310-579-0079	A365	5315-832-8140	A494	5340-143-0132	A754
5310-579-0079	A370	5330-832-8297	B196	5340-143-0132	A758
5310-579-0079	A453	5310-838-3184	A938	5340-197-8810	B766
5310-579-0079	A508	5310-840-6791	A726	5340-205-5244	A683
5310-579-0079	A527	5310-840-6791	B029	5340-282-0782	B212
5310-579-0079	A547	5310-905-5454	B775	5340-334-8362	B202
5310-579-0079	A591	5310-934-9751	A690	5340-334-8362	B203
5310-579-0079	A662	5310-934-9747	A085	5340-334-8362	B204
5310-579-0079	A903	5310-934-9747	A089	5340-334-8362	B205
5310-579-0079	A908	5310-934-9747	A328	5340-508-5934	A012
5310-579-0079	A963	5310-934-9747	A338	5340-508-5934	A018
5310-579-0079	A992	5310-934-9747	A359	5340-918-9555	B044
5310-579-0079	B009	5310-934-9747	A545	5340-918-9555	B074
5310-579-0079	B347	5310-934-9747	A964	5355-284-5131	A458
5310-579-0079	B352	5310-934-9747	B010	5355-284-5131	A459
5310-579-0079	B706	5310-934-9747	B756	5355-323-6091	B467
5310-579-0079	B713	5310-934-9747	B761	5355-667-9399.	B468
5310-579-0079	B720	5310-934-9757	A074	5360-178-8152	B002
5310-579-0079	B758	5310-934-9757	A264	5360-178-8152	B003
5310-579-0079	B764	5310-934-9757	A302	5360-178-8152	B004
5310-579-0079	B769	5310-934-9757	A306	5360-178-8153	B001
5310-579-0079	B798	5310-934-9757	A567	5365-832-8141	B250
5310-579-0079	B806	5310-934-9757	A587	5365-832-8141	B653
5310-579-9554	B341	5315-058-9727	A618	5905-171-1974	A143
5310-595-5515	A820	5315-058-9727	A643	5905-171-1974	A144

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SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5905-171-1974	A145
5905-171-1985	A136
5905-171-1985	A432
5905-175-5477	A484
5905-185-6944	A150
5905-185-8518	A148
5905-185-8518	A149
5905-185-8518	A417
5905-185-8518	A418
5905-185-8518	A419
5905-185-8518	A420
5905-185-8518	B105
5905-192-3981	A137
5905-192-3981	A138
5905-192-3981	A139
5905-192-3982	A120
5905-192-3982	A121
5905-192-3982	A423
5905-192-3892	A424
5905-192-3982	A513
5905-192-3982	B112
5905-192-3987	A130
5905-192-3987	A208
5905-195-6449	A142
5905-195-6451	A127
5905-195-6451	A128
5905-245-0023	A416
5905-249-3656	B111
5905-252-4018	A469
5905-256-0387	A125
5905-256-0387	A126
5905-279-1866	A133
5905-279-1866	A560
5905-279-1866	A561
5905-279-1866	A562
5905-279-1886	A141
5905-279-2029	A151
5905-279-2593	A140
5905-295-3409	A122
5905-295-3409	A123
5905-295-3409	A422
5905-299-2007	A154
5905-299-2007	A155
5905-446-0147	A147
5905-577-9415	A440
5905-577-9415	A441
5905-681-8690	A218
5905-793-8974	B109
5905-798-1634	B104
5905-798-1634	B108
5905-798-1736	A131
5905-798-1736	A132
5910-101-4014	A407
5910-112-6884	A042
5910-129-6242	A409
5910-160-4803	A917
5910-160-4803	A918
5910-160-4803	B223
5910-543-1200	A490
5910-543-1200	A491
5910-543-1200	A851
5910-556-9216	A270
5910-577-3064	A038
5910-577-3064	A039
5910-579-3064	A351
5910-579-3064	A352
5910-668-3013	A485
5910-669-3061	A106
5910-669-3061	A107
5910-669-3061	A108
5910-669-3061	A109
5910-669-3061	A110
5910-678-5806	A034
5910-678-5306	A035
5910-678-5306	A036
5910-678-5306	A037
5910-823-1068	A111
5910-823-1068	A403
5910-823-1068	A404
5910-823-1068	A405
5910-823-1068	A406
5910-823-1068	B101
5910-892-7875	A412
5910-892-7875	A413
5920-284-6733	A157
5920-284-6733	A443
5920-284-6733	A872
5920-568-0926	A876
5920-568-0926	A877
5920-933-4052	A158
5920-933-4052	A444
5930-255-5749	B772
5930-259-8233	A244
5930-296-5782	B773
5930-548-8487	B005
5930-552-1009	A240
5930-552-1009	A241
5930-642-9292	A563
5930-655-1514	A248
5930-655-1514	A564
5930-655-1515	A565
5930-799-8975	B728
5935-063-5789	A523
5935-063-5789	A524
5935-063-5789	B765
5935-134-5308	B025
5935-199-3368	A284
5935-259-6775	B795
5935-260-0516	A234
5935-260-0516	A515
5935-260-0516	A516

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5935-260-0516	A517	5950-977-5633	A267	5977-240-1492	B255
5935-260-0516	A518	5960-166-7663	A070	5977-636-4604	B213
5935-260-0516	A519	5960-166-7663	A071	5977-636-4604	B214
5935-283-8303	B166	5960-166-7664	A388	5977-991-0067	B256
5935-283-8303	B232	5960-166-7664	A389	5977-991-0067	B257
5935-295-4358	A834	5960-166-7664	A390	6145-606-8237	A969
5935-617-7664	A295	5960-188-0933	B019	6210-548-0378	B018
5935-617-7664	A296	5960-264-3004	A220	6210-635-5423	A191
5935-729-8937	A059	5960-264-3004	A221	6240-099-8600	B021
5935-805-4836	A288	5960-264-3004	A222	6240-143-3049	A886
5935-805-4836	A289	5960-264-3004	A223	6240-143-3049	B730
5935-805-4836	A294	5960-264-3004	A224	6240-155-8706	A176
5935-812-4936	A226	5960-264-3004	B087	6240-243-8336	A889
5935-812-4936	A227	5960-264-7932	B097	6240-243-8336	B022
5935-812-4936	A228	5960-272-9182	A395	6250-299-7013	A890
5935-812-4936	A229	5960-272-9182	A396	6680-527-6043	B317
5935-812-4936	A230	5960-272-9182	A397	6730-078-4555	B311
5935-812-4936	A528	5960-686-8087	A499	6730-141-8188	B420
5935-812-4936	A529	5960-686-8087	A500	6730-141-8488	B195
5935-825-4196	A054	5960-729-8150	A225	6730-178-5833	A159
5935-825-4196	A055	5960-729-8150	A501	6730-178-5834	B070
5935-825-4196	A381	5960-729-8150	A502	6730-178-5835	B066
5935-950-9817	A164	5960-729-8150	A503	6730-204-4513	B635
5935-950-9817	A165	5960-729-8150	A504	6730-205-4613	B630
5935-950-9817	A455	5960-729-8150	A505	6730-265-6282	B623
5940-177-1694	A849	5960-812-0705	A067	6730-265-6283	A624
5940-177-1694	A850	5960-812-0705	A068	6730-265-6283	A649
5940-177-6500	A088	5960-812-0705	A069	6730-288-5096	B238
5940-177-6504	A156	5965-187-4277	A002	6730-306-2348	B404
5945-134-7224	B800	5965-280-3770	A326	6730-336-9165	B602
5950-133-8947	A273	5965-284-6708	A463	6730-341-7782	A906
5950-569-0169	A585	5975-713-9091	A572	6730-341-7799	A605
5950-648-1734	A586	5975-713-9091	B790	6730-341-7818	B243
5950-950-7547	A263	5975-784-4591	B811	6730-341-7867	A385
5950-951-0673	A259	5975-825-3330	A344	6730-341-7867	A386
5950-973-1390	A255	5975-825-3330	A571	6730-341-7874	B600
5950-973-1390	A256	5977-240-1492	B254	6730-341-7879	B483

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6730-341-7886	B640
6730-341-7886	B641
6730-355-9860	A815
6730-356-4859	B348
6730-356-6879	A697
6730-356-6913	A736
6730-356-6913	A753
6730-356-6913	A757
6730-356-6914	A740
6730-356-6917	B392
6730-356-6919	A725
6730-356-6923	B614
6730-356-6925	B563
6730-356-6930	B457
6730-356-6930	B458
6730-356-6930	B682
6730-356-6930	B684
6730-356-6934	B297
6730-356-6939	B037
6730-356-6955	B043
6730-356-6956	B073
6730-356-6958	B434
6730-356-6958	B437
6730-356-6958	B695
6730-356-6958	B698
6730-356-6959	A781
6730-356-6959	A787
6730-356-6959	A800
6730-356-6959	A806
6730-356-6970	B597
6730-356-6971	B701
6730-356-6971	B702
6730-356-6974	B571
6730-356-6977	B568
6730-356-6979	B572
6730-356-6979	B580
6730-356-6979	B588

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6730-356-6986	B637
6730-356-6988	B632
6730-356-6988	B633
6730-356-6991	B488
6730-356-6991	B489
6730-356-6991	B490
6730-356-6995	B301
6730-391-5312	B401
6730-393-3983	B026
6730-542-1085	A640
6730-542-1181	A615
6730-562-1279	B689
6730-597-8284	B628
6730-597-9489	B631
6730-597-9831	B485
6730-617-0962	A684
6730-618-2479	B292
6730-618-2479	B674
6730-662-6029	A609
6730-662-6029	A633
6730-671-5854	B499
6730-672-9898	B494
6730-682-4741	A905
6730-709-6028	B045
6730-709-6028	B075
6730-763-2164	B506
6730-832-4771	A278
6730-889-3393	A331
6730-889-3394	A001
6730-892-3891	A003
6730-936-2328	B540
6730-936-5463	B714
6730-936-5464	B538
6730-938-1694	B643
6730-938-1694	B644
6730-938-1694	B645
6730-938-1695	A442
6730-950-7546	B672

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6730-977-2751	B117
6760-345-0521	A589
6760-392-8974	A616
6760-392-8974	A641
6760-392-9877	B466
7920-356-4694	A682

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AN3027-2	88044	B772
AN340-4	88044	A023
AN340-4	88044	A045
AN340-4	88044	A056
AN340-4	88044	A060
AN340-4	88044	A231
AN340-4	88044	A235
AN340-4	88044	B155
AN340-5	88044	B089
AN340-5	88044	B326
AN450C12B8	88044	A714
AN450C12B8	88044	A845
AN450C12B8	88044	A855
AN450C12B8	88044	A857
AN450C8-5	88044	A852
AN450C8AD10	88044	A860
AN450C9B10	88044	A819
AN450C9B10	88044	A847
AN500-3-4	88044	B147
AN500-5-4	88044	B371
AN500-6-6	88044	B027
AN505-2-5	88044	B024
AN505-6-6	88044	B757
AN505-6-8	88044	A360
AN505-6-8	88044	B710
AN505-6-8	88044	B768
AN515-2-2	88044	B136
AN515-3-3	88044	A987
AN515-3-3	88044	B357

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AN515-5-5	88044	B690
AN515-5-5	88044	B729
AN515-5-6	88044	A959
AN515-5-8	88044	B090
AN515-6-18	88044	B762
AN515-6-4	88044	A902
AN515-6-4	88044	A962
AN515-6-4	88044	B797
AN515-6-4	88044	B805
AN515-6-40	88044	A472
AN515-6-5	88044	A339
AN515-6-5	88044	A452
AN515-6-5	88044	A507
AN515-6-5	88044	A526
AN515-6-5	88044	A546
AN515-6-5	88044	A991
AN515-6-6	88044	A661
AN515-6-6	88044	A907
AN515-6-6	88044	B008
AN515-8-10	88044	B801
AN515-8-12	88044	A497
AN515-8-14	88044	A735
AN515-8-14	88044	A752
AN515-8-6	88044	A664
AN515C6-4	88044	A978
AN515C6-4	88044	B014
AN520-10-16	88044	B188
AN520-10-4	88044	A691
AN520-10-4	88044	B179
AN520-10-4	88044	B182
AN520-10-4	88044	B677
AN526-632R6	88044	A362
AN526-632R6	88044	A364
AN526-632R6	88044	B705
AN526-632R8	88044	A450
AN526-832R18	88044	A929
AN526-832R8	88044	B792
AN535-00-2	88044	A900
AN535-00-4	88044	B336
AN565A6L6	88044	B564
AN565A8L3	88044	B260
AN565D1032L3	88044	B119
AN565D6L2	88044	A387
AN565D6L2	88044	B118
AN565D8L2	88044	B172
AN565D8L3	88044	A460
AN565D8L3	88044	B393
AN565D8L3	88044	B400
AN565D8L4	88044	B259
AN565D8L4	88044	B683
AN565D8L4	88044	B685
AN935-10	88044	B199
AN936A10	88044	B219
AN936A10	88044	B231
AN936A16	88044	B227
AN936A2	88044	B310
AN936A2	88044	B492
AN936A3	88044	A988
AN936A3	88044	B358
AN936A5	88044	A960
AN936A5	88044	A979
AN936A5	88044	B013
AN936A5	88044	B092
AN936A5	88044	B691
AN936A6	88044	B235
AN936A6	88044	B275
AN960-516	88044	B384
AN7A	80063	A001
B47-04	60380	B518
B47-04	60380	B519
B47-04	60380	B520
B47-04	60380	B521
B8TCH	60380	A602
B8TCH	60380	A603
B8TCH	60380	A631
B8TCH	60380	A632
CM15F101J03	81349	A409
CM20B501K	81349	A271
CM20B501K	81349	A272
CM20B751J	81349	A270
CM30E102J	81349	A407
CP53B1FF105V	81349	A042
CP53B1FF205V	81349	A043
CP53B1FF205V	81349	A044
MS15571-2	96906	A176
MS16535-113	96906	A376
MS20364D1032A	96906	B464
MS20365D832A	96906	A253
MS20365D832A	96906	A299
MS20365D832A	96906	A318
MS20450C9B10	96906	A310
MS20450C9B10	96906	A323
MS21044N06	96906	A399
MS21044N06	96906	A449
MS21044N06	96906	A471
MS21044N06	96906	B569
MS24233-3	96906	A501
MS24233-3	96906	A502
MS24233-3	96906	A503
MS24233-3	96906	A504
MS24233-3	96906	A505
MS24233-5	96906	A499
MS24233-5	96906	A500
MS25082-87	96906	A166
MS25082-87	96906	A213
MS25082-87	96906	A216
MS25082-87	96906	A242
MS25082-87	96906	B006
MS25311-110	96906	A971
MS25311-110	96906	A972
MS25311-110	96906	A973
MS35043-100	96906	A147
MS35043-12	96906	A125
MS35043-12	96906	A126

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MS35043-130	96906	B111
MS35043-132	96906	A206
MS35043-132	96906	A207
MS35043-132	96906	A426
MS35043-136	96906	A427
MS35043-136	96906	A428
MS35043-137	96906	B106
MS35043-137	96906	B110
MS35043-14	96906	A131
MS35043-14	96906	A132
MS35043-142	96906	A429
MS35043-142	96906	A430
MS35043-142	96906	A431
MS35043-142	96906	A477
MS35043-15	96906	A135
MS35043-152	96906	B104
MS35043-152	96906	B108
MS35043-163	96906	A152
MS35043-163	96906	A153
MS35043-163	96906	B107
MS35043-17	96906	A127
MS35043-17	96906	A128
MS35043-18	96906	A416
MS35043-19	96906	A148
MS35043-19	96906	A149
MS35043-19	96906	A417
MS35043-19	96906	A418
MS35043-19	96906	A419
MS35043-19	96906	A420
MS35043-19	96906	B105
MS35043-195	96906	A141
MS35043-208	96906	A146
MS35043-208	96906	A434
MS35043-208	96906	A435
MS35043-209	96906	A136
MS35043-209	96906	A432
MS35043-21	96906	A151
MS35043-214	96906	A433

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REF NO.	MFG CO.	ITEM SEQ. NO.
MS35043-219	96906	A150
MS35043-220	96906	A080
MS35043-220	96906	A081
MS35043-220	96906	A082
MS35043-220	96906	A115
MS35043-220	96906	A116
MS35043-220	96906	A117
MS35043-220	96906	A118
MS35043-220	96906	A119
MS35043-220	96906	A436
MS35043-220	96906	A437
MS35043-220	96906	A438
MS35043-220	96906	A439
MS35043-23	96906	A134
MS35043-23	96906	A421
MS35043-25	96906	A130
MS35043-25	96906	A208
MS35043-27	96906	A122
MS35043-27	96906	A123
MS35043-27	96906	A422
MS35043-28	96906	A124
MS35043-31	96906	A120
MS35043-31	96906	A121
MS35043-31	96906	A423
MS35043-31	96906	A424
MS35043-31	96906	A513
MS35043-31	96906	B112
MS35043-34	96906	A425
MS35043-37	96906	A133
MS35043-37	96906	A560
MS35043-37	96906	A561
MS35043-37	96906	A562
MS35043-72	96906	A140
MS35043-84	96906	A129
MS35043-94	96906	B109
MS35044-118	96906	A597
MS35044-204	96906	A467
MS35044-204	96906	A468

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MS35044-24	96906	A154
MS35044-24	96906	A155
MS35045-15	96906	A143
MS35045-15	96906	A144
MS35045-15	96906	A145
MS35045-17	96906	A142
MS35058-22	96906	A248
MS35058-22	96906	A564
MS35058-23	96906	A565
MS35206-208	96906	B340
MS35206-213	96906	B156
MS35206-226	96906	B351
MS35206-228	96906	A329
MS35206-228	96906	B345
MS35206-231	96906	A400
MS35206-243	96906	A075
MS35206-243	96906	A265
MS35206-243	96906	A569
MS35206-251	96906	B339
MS35206-254	96906	A924
MS35206-43	96906	A333
MS35206-43	96906	A700
MS35206-43	96906	A864
MS35207-263	96906	B280
MS35217-36	96906	B688
MS35223-13	96906	A232
MS35223-13	96906	A236
MS35223-14	96906	A024
MS35223-14	96906	A057
MS35223-14	96906	A061
MS35223-26	96906	B226
MS35223-26	96906	B719
MS35223-27	96906	A010
MS35223-27	96906	A016
MS35223-27	96906	A025
MS35223-27	96906	A050
MS35223-27	96906	A086
MS35223-27	96906	A090

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MS35223-27	96906	A094
MS35223-27	96906	A097
MS35223-27	96906	A101
MS35223-27	96906	A162
MS35223-27	96906	A200
MS35223-27	96906	A246
MS35223-27	96906	A261
MS35223-30	96906	B262
MS35223-32	96906	B346
MS35223-42	96906	B234
MS35223-45	96906	B425
MS35223-47	96906	A041
MS35223-55	96906	A046
MS35224-58	96906	B218
MS35224-63	96906	B302
MS35224-67	96906	B200
MS35224-68	96906	B198
MS35225-26	96906	A369
MS35239-9	96906	B495
MS35256-64	96906	B185
MS35333-10	96906	B679
MS35333-121	96906	B775
MS35333-35	96906	B341
MS35333-36	96906	A026
MS35333-36	96906	A062
MS35333-36	96906	A066
MS35333-36	96906	A114
MS35333-36	96906	A233
MS35333-36	96906	A237
MS35333-36	96906	A345
MS35333-36	96906	A356
MS35333-36	96906	A380
MS35333-36	96906	A384
MS35333-36	96906	A489
MS35333-36	96906	A495
MS35333-36	96906	A522
MS35333-36	96906	A532
MS35333-36	96906	A574
MS35333-36	96906	A658
MS35333-36	96906	A783
MS35333-36	96906	A789
MS35333-36	96906	A802
MS35333-36	96906	A808
MS35333-36	96906	A825
MS35333-36	96906	A841
MS35333-36	96906	A895
MS35333-36	96906	A957
MS35333-36	96906	B061
MS35333-36	96906	B176
MS35333-36	96906	B241
MS35333-36	96906	B296
MS35333-36	96906	B307
MS35333-36	96906	B319
MS35333-36	96906	B323
MS35333-36	96906	B462
MS35333-36	96906	B475
MS35333-36	96906	B478
MS35333-36	96906	B516
MS35333-36	96906	B613
MS35333-36	96906	B712
MS35333-37	96906	A011
MS35333-37	96906	A017
MS35333-37	96906	A027
MS35333-37	96906	A051
MS35333-37	96906	A087
MS35333-37	96906	A091
MS35333-37	96906	A095
MS35333-37	96906	A098
MS35333-37	96906	A102
MS35333-37	96906	A163
MS35333-37	96906	A194
MS35333-37	96906	A201
MS35333-37	96906	A247
MS35333-37	96906	A258
MS35333-37	96906	A262
MS35333-37	96906	A269
MS35333-37	96906	A330
MS35333-37	96906	A340
MS35333-37	96906	A361
MS35333-37	96906	A365
MS35333-37	96906	A370
MS35333-37	96906	A453
MS35333-37	96906	A508
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MS35333-37	96906	B009
MS35333-37	96906	B347
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MS35333-37	96906	B706
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MS35333-37	96906	B764
MS35333-37	96906	B769
MS35333-37	96906	B798
MS35333-37	96906	B806
MS35333-38	96906	A007
MS35333-38	96906	A076
MS35333-38	96906	A205
MS35333-38	96906	A254
MS35333-38	96906	A266
MS35333-38	96906	A303
MS35333-38	96906	A307
MS35333-38	96906	A334
MS35333-38	96906	A573
MS35333-38	96906	A588
MS35333-38	96906	A665
MS35333-38	96906	A701

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MS35333-38	96906	A742
MS35333-38	96906	A866
MS35333-38	96906	A925
MS35333-38	96906	A930
MS35333-38	96906	B047
MS35333-38	96906	B077
MS35333-38	96906	B209
MS35333-38	96906	B427
MS35333-38	96906	B777
MS35333-38	96906	B793
MS35333-38	96906	B803
MS35333-39	96906	A693
MS35333-39	96906	B186
MS35333-39	96906	B190
MS35333-39	96906	B281
MS35333-39	96906	B303
MS35333-40	96906	A350
MS35333-40	96906	A696
MS35333-40	96906	A837
MS35333-42	96906	A551
MS35335-30	96906	B263
MS35335-36	96906	B272
MS35337-21	96906	B036
MS35337-21	96906	B039
MS35337-40	96906	A058
MS35337-40	96906	B574
MS35337-40	96906	B582
MS35337-40	96906	B590
MS35337-42	96906	B237
MS35337-43	96906	A694
MS35337-43	96906	B180
MS35337-43	96906	B183
MS35337-43	96906	B300
MS35337-81	96906	B680
MS35649-262	96906	A085
MS35649-262	96906	A089
MS35649-262	96906	A328
MS35649-262	96906	A338
MS35649-262	96906	A359
MS35649-262	96906	A545
MS35649-262	96906	A964
MS35649-262	96906	B010
MS35649-262	96906	B756
MS35649-262	96906	B761
MS35649-282	96906	A074
MS35649-282	96906	A264
MS35649-282	96906	A302
MS35649-282	96906	A306
MS35649-282	96906	A567
MS35649-282	96906	A587
MS35650-302	96906	A690
MS36224-59	96906	B230
MS39056-3	96906	A281
MS39056-3	96906	A282
MS39056-4	96906	A279
MS39056-4	96906	A280
MS51957-42	96906	A005
MS51958-64	96906	B293
MS51963-37	96906	A169
MS51963-37	96906	A171
MS51963-37	96906	A173
MS51963-37	96906	A175
MS90287-10	96906	A191
RC20GF124J	81349	A137
RC20GF124J	81349	A138
RC20GF124J	81349	A139
RC20GF470J	81349	A469
RV4LAXSA502A	81349	A218
RV4LAXSA503C	81349	A219
RV4NAXSD504D	81349	A209
RV4NAXSD504D	81349	A210
RV4NAXSD504D	81349	A211
RV4NAXSD504D	81349	A212
SCC351467	80063	B499
SMB338345	80063	B398
SMB338350	80063	B407
SMB338350-1	80063	B409
SMB338351	80063	B410
SMB338351	80063	B414
SMB338352	80063	B408
SMB338355	80063	B411
SMB338355-1	80063	B413
SMB338356	80063	B412
SMB338356	80063	B416
SMB338357	80063	B415
SMB338357-1	80063	B417
SMB338358	80063	B418
SMB338359	80063	B424
SMB338359-1	80063	B430
SMB338360	80063	B211
SMB338360	80063	B429
SMB338361	80063	B428
SMB338364	80063	B399
SMB338367	80063	B568
SMB338370	80063	B419
SMB338372	80063	B420
SMB338373	80063	B421
SMB338374	80063	B423
SMB338378	80063	B456
SMB338379	80063	B454
SMB338385	80063	B431
SMB338386	80063	B056
SMB338386	80063	B432
SMB338386	80063	B435
SMB338386	80063	B438
SMB338386	80063	B452
SMB338386	80063	B696
SMB338386	80063	B699
SMB338387	80063	B433
SMB338391	80063	B434
SMB338391	80063	B437
SMB338391	80063	B695
SMB338391	80063	B698
SMB338393	80063	B436

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.
SMB338393	80063	B439
SMB338393	80063	B697
SMB338393	80063	B700
SMB338394	80063	B297
SMB338399	80063	B401
SMB338402	80063	B405
SMB338409	80063	B596
SMB338410	80063	B599
SMB338411	80063	B597
SMB338412	80063	B598
SMB338415	80063	B324
SMB338416	80063	B325
SMB338417	80063	B334
SMB338418	80063	B332
SMB338419	80063	B331
SMB338420	80063	B337
SMB338422	80063	B301
SMB338424	80063	B304
SMB338425	80063	B284
SMB338428	80063	B565
SMB338430	80063	B567
SMB338433	80063	B620
SMB338434	80063	B614
SMB338435	80063	B615
SMB338436	80063	B622
SMB338437	80063	B623
SMB338438	80063	B619
SMB338441	80063	B575
SMB338441	80063	B583
SMB338441	80063	B591
SMB338442	80063	B576
SMB338442	80063	B584
SMB338442	80063	B592
SMB338443	80063	B579
SMB338443	80063	B587
SMB338443	80063	B595
SMB338444	80063	B577
SMB338444	80063	B585
SMB338444	80063	B593
SMB338445	80063	B286
SMB338445-1	80063	B290
SMB338446	80063	B288
SMB338447	80063	B289
SMB338449	80063	B388
SMB338450	80063	B361
SMB338451	80063	B381
SMB338452	80063	B356
SMB338453	80063	B383
SMB338454	80063	B404
SMB338455	80063	B387
SMB338456	80063	B385
SMB338456	80063	B391
SMB338459	80063	B365
SMB338460	80063	B366
SMB338461	80063	B369
SMB338463	80063	B367
SMB338464	80063	B368
SMB338466	80063	B376
SMB338467	80063	B377
SMB338468	80063	B378
SMB338469	80063	B373
SMB338470	80063	B374
SMB338473	80063	B354
SMB338476	80063	B353
SMB338480	80063	B379
SMB338485	80063	B359
SMB338490	80063	B446
SMB338492	80063	B448
SMB338493	80063	B444
SMB338494	80063	B445
SMB338495	80063	B450
SMB338496	80063	B449
SMB338499	80063	B476
SMB338500	80063	B479
SMB338501	80063	B473
SMB338502	80063	B472
SMB338503	80063	B467
SMB338504	80063	B468
SMB338506	80063	B481
SMB338507	80063	B484
SMB338508	80063	B485
SMB338509	80063	B482
SMB338510	80063	B463
SMB338511	80063	B463
SMB338512	80063	B465
SMB338513-1	80063	B474
SMB338513-1	80063	B477
SMB338513-2	80063	B480
SMB338523	80063	B509
SMB338523	80063	B510
SMB338524	80063	B511
SMB338524	80063	B512
SMB338531	80063	B505
SMB338532	80063	B501
SMB338533	80063	B502
SMB338534	80063	B504
SMB338542	80063	B496
SMB338547	80063	B338
SMB338549	80063	B342
SMB338550	80063	B343
SMB338551	80063	B651
SMB338553	80063	B652
SMB338555	80063	B546
SMB338555	80063	B556
SMB338556	80063	B545
SMB338556	80063	B555
SMB338557	80063	B547
SMB338557	80063	B557
SMB338558	80063	B550
SMB338558	80063	B560
SMB338559	80063	B551
SMB338559	80063	B561
SMB338560	80063	B543
SMB338560	80063	B553

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMB338561	80063	B548	SMB338597	80063	B571	SMB338623-3	80063	B656
SMB338561	80063	B558	SMB338598	80063	B629	SMB338623-4	80063	B657
SMB338565	80063	B605	SMB338599	80063	B630	SMB338624-1	80063	B658
SMB338566	80063	B609	SMB338600	80063	B628	SMB338624-2	80063	B659
SMB338567	80063	B604	SMB338601	80063	B631	SMB338624-3	80063	B660
SMB338568	80063	B610	SMB338602	80063	B667	SMB338624-4	80063	B661
SMB338569	80063	B608	SMB338602	80063	B668	SMB338625	80063	B208
SMB338570	80063	B606	SMB338602	80063	B669	SMB338625	80063	B225
SMB338576	80063	B522	SMB338602	80063	B670	SMB338625	80063	B486
SMB338576	80063	B523	SMB338603	80063	B294	SMB338626	80063	B662
SMB338576	80063	B524	SMB338604	80063	B305	SMB338627	80063	B663
SMB338576	80063	B525	SMB338605	80063	B308	SMB338627	80063	B664
SMB338576	80063	B526	SMB338606	80063	B313	SMB338627	80063	B665
SMB338576	80063	B527	SMB338607	80063	B315	SMB338627	80063	B666
SMB338576	80063	B528	SMB338608	80063	B291	SMB338628	80063	B602
SMB338576	80063	B529	SMB338609	80063	B488	SMB338629	80063	B625
SMB338577	80063	B530	SMB338609	80063	B489	SMB338630	80063	B394
SMB338577	80063	B531	SMB338609	80063	B490	SMB338631	80063	B603
SMB338578	80063	B539	SMB338610	80063	B514	SMB338632	80063	B299
SMB338579	80063	B541	SMB338611	80063	B451	SMB338633	80063	B487
SMB338580	80063	B532	SMB338612	80063	B311	SMB338636	80063	B251
SMB338581	80063	B533	SMB338613	80063	B563	SMB338638	80063	B601
SMB338581	80063	B534	SMB338614	80063	B440	SMB338639	80063	A956
SMB338583	80063	B535	SMB338615	80063	B643	SMB338639	80063	B295
SMB338584	80063	B536	SMB338615	80063	B644	SMB338639	80063	B322
SMB338585	80063	B540	SMB338615	80063	B645	SMB338639	80063	B461
SMB338586	80063	B538	SMB338616	80063	B380	SMB338639	80063	B515
SMB338588	80063	B646	SMB338617	80063	B348	SMB338639	80063	B573
SMB338588	80063	B647	SMB338618	80063	B317	SMB338639	80063	B581
SMB338589	80063	B648	SMB338619	80063	B282	SMB338639	80063	B589
SMB338590	80063	B649	SMB338620	80063	B624	SMB338640	80063	B306
SMB338590	80063	B650	SMB338621	80063	B298	SMB338641	80063	B298
SMB338591	80063	B397	SMB338621	80063	B674	SMB338642	80063	B312
SMB338592	80063	B632	SMB338622	80063	B568	SMB338643	80063	B457
SMB338592	80063	B633	SMB338622	80063	B687	SMB338643	80063	B458
SMB338593	80063	B635	SMB338623-1	80063	B654	SMB338643	80063	B682
SMB338594	80063	B637	SMB338623-2	80063	B655	SMB338643	80063	B684
SMB338596	80063	B570	SMB338623-3	80063	B386	SMB338644	80063	B626

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMD338644	80063	B627	SMD338687	80063	B266	SMD338720-2	80063	B193
SMD338644	80063	B703	SMD338688	80063	B267	SMD338720-3	80063	B194
SMD338646	80063	B171	SMD338689	80063	B268	SMD338722	80063	B195
SMD338647	80063	A905	SMD338690	80063	B269	SMD338723	80063	B217
SMD338648	80063	A006	SMD338692	80063	B277	SMD338725	80063	B220
SMD338648	80063	A865	SMD338692	80063	B278	SMD338728	80063	B202
SMD338648	80063	B189	SMD338694	80063	B254	SMD338728	80063	B203
SMD338651	80063	A937	SMD338694	80063	B255	SMD338728	80063	B204
SMD338652	80063	A941	SMD338695	80063	B213	SMD338728	80063	B205
SMD338653	80063	A947	SMD338695	80063	B214	SMD338729	80063	B206
SMD338653	80063	A948	SMD338696	80063	B256	SMD338729-1	80063	B212
SMD338654	80063	A952	SMD338696	80063	B257	SMD338730	80063	B210
SMD338655	80063	A935	SMD338697	80063	B215	SMD338734	80063	B026
SMD338656	80063	A946	SMD338697	80063	B216	SMD338735	80063	A976
SMD338659	80063	A944	SMD338698	80063	B221	SMD338736	80063	B033
SMD338660	80063	A950	SMD338698	80063	B222	SMD338737	80063	B045
SMD338661	80063	A939	SMD338699	80063	B166	SMD338737	80063	B075
SMD338662	80063	A940	SMD338699	80063	B232	SMD338740	80063	B046
SMD338663	80063	A951	SMD338702	80063	A048	SMD338740	80063	B076
SMD338668	80063	A931	SMD338702	80063	B224	SMD338740	80063	B091
SMD338670	80063	A932	SMD338703	80063	B270	SMD338743	80063	B766
SMD338671	80063	A915	SMD338704	80063	B228	SMD338748	80063	B138
SMD338671	80063	A916	SMD338704	80063	B229	SMD338749	80063	B148
SMD338672	80063	A920	SMD338706	80063	B238	SMD338750	80063	B134
SMD338672	80063	A921	SMD338707	80063	B249	SMD338752	80063	B123
SMD338673	80063	A913	SMD338708	80063	B252	SMD338757	80063	B062
SMD338673	80063	A914	SMD338709	80063	B250	SMD338758	80063	B064
SMD338675	80063	B223	SMD338709	80063	B653	SMD338759	80063	B059
SMD338677	80063	A926	SMD338710	80063	B243	SMD338760	80063	B071
SMD338677	80063	A927	SMD338710-1	80063	B245	SMD338761	80063	B057
SMD338678	80063	B178	SMD338711	80063	B246	SMD338764	80063	B067
SMD338678	80063	B181	SMD338712	80063	B244	SMD338764	80063	B068
SMD338678	80063	B184	SMD338715	80063	B247	SMD338765	80063	B070
SMD338678	80063	B676	SMD338717	80063	B242	SMD338766	80063	B073
SMD338680	80063	B681	SMD338717	80063	B248	SMD338766-1	80063	B084
SMD338684	80063	B274	SMD338718	80063	B239	SMD338767	80063	B081
SMD338685	80063	B264	SMD338720	80063	B191	SMD338768	80063	B082
SMD338686	80063	B265	SMD338720-1	80063	B196	SMD338769	80063	B054

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMB338769	80063	B083	SMB338819	80063	A766	SMB338848-1	80063	A810
SMB338770	80063	B048	SMB338820	80063	A317	SMB338849	80063	A786
SMB338770	80063	B078	SMB338820	80063	A719	SMB338849	80063	A792
SMB338771	80063	B049	SMB338821	80063	A816	SMB338849	80063	A805
SMB338771	80063	B050	SMB338822	80063	A731	SMB338849	80063	A811
SMB338771	80063	B079	SMB338823	80063	A723	SMB338852	80063	A703
SMB338771	80063	B080	SMB338824	80063	A770	SMB338852	80063	A704
SMB338774	80063	B052	SMB338826	80063	A812	SMB338853	80063	A705
SMB338775	80063	B015	SMB338829	80063	A322	SMB338853	80063	A706
SMB338777	80063	B017	SMB338829	80063	A818	SMB338853	80063	A707
SMB338778	80063	B018	SMB338830	80063	A717	SMB338853	80063	A708
SMB338783	80063	B037	SMB338831	80063	A776	SMB338853	80063	A709
SMB338786	80063	B023	SMB338831	80063	A795	SMB338853	80063	A710
SMB338792	80063	A969	SMB338831	80063	A869	SMB338854	80063	A712
SMB338794	80063	A974	SMB338832	80063	A820	SMB338854	80063	A713
SMB338794	80063	A975	SMB338833	80063	A697	SMB338860	80063	A748
SMB338796	80063	B116	SMB338837	80063	A730	SMB338861	80063	A741
SMB338797	80063	A967	SMB338838	80063	A728	SMB338865	80063	A736
SMB338803	80063	B675	SMB338842	80063	A767	SMB338865	80063	A753
SMB338804	80063	B701	SMB338843	80063	A769	SMB338865	80063	A757
SMB338804	80063	B702	SMB338844	80063	A768	SMB338866	80063	A738
SMB338807	80063	B693	SMB338846	80063	A778	SMB338866	80063	A755
SMB338808	80063	B694	SMB338846	80063	A797	SMB338866	80063	A759
SMB338813	80063	A698	SMB338847	80063	A779	SMB338867	80063	A739
SMB338813	80063	A699	SMB338847	80063	A780	SMB338867	80063	A756
SMB338814	80063	A718	SMB338847	80063	A798	SMB338867	80063	A760
SMB338815	80063	A319	SMB338847	80063	A799	SMB338868	80063	A737
SMB338815	80063	A721	SMB338848	80063	A781	SMB338868	80063	A744
SMB338816	80063	A320	SMB338848	80063	A787	SMB338868	80063	A754
SMB338816	80063	A722	SMB338848	80063	A800	SMB338868	80063	A758
SMB338817	80063	A815	SMB338848	80063	A806	SMB338869	80063	A740
SMB338818	80063	A321	SMB338848-1	80063	A784	SMB338870	80063	A743
SMB338818	80063	A724	SMB338848-1	80063	A785	SMB338871	80063	A745
SMB338818	80063	A813	SMB338848-1	80063	A790	SMB338872	80063	A746
SMB338818	80063	A814	SMB338848-1	80063	A791	SMB338877	80063	A548
SMB338819	80063	A763	SMB338848-1	80063	A803	SMB338877-3	80063	A552
SMB338819	80063	A764	SMB338848-1	80063	A804	SMB338878	80063	A563
SMB338819	80063	A765	SMB338848-1	80063	A809	SMB338880	80063	A553

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMD338880	80063	A554	SMD338910	80063	A576	SMD338959	80063	A448
SMD338880	80063	A555	SMD338911	80063	A474	SMD338960	80063	A465
SMD338880	80063	A556	SMD338911-1	80063	A478	SMD338964	80063	A341
SMD338881	80063	A557	SMD338912	80063	A215	SMD338968	80063	A462
SMD338882	80063	A558	SMD338913	80063	A475	SMD338969	80063	A461
SMD338883	80063	A559	SMD338913	80063	A476	SMD338970	80063	A164
SMD338885	80063	A589	SMD338931	80063	A511	SMD338970	80063	A165
SMD338885-1	80063	A593	SMD338931-6	80063	B167	SMD338970	80063	A455
SMD338887	80063	A594	SMD338931-7	80063	B168	SMD338971	80063	A377
SMD338888	80063	A187	SMD338931-8	80063	B169	SMD338972	80063	A157
SMD338888	80063	A595	SMD338939	80063	A111	SMD338972	80063	A443
SMD338888	80063	B157	SMD338939	80063	B101	SMD338972	80063	A872
SMD338889	80063	A596	SMD338940	80063	A414	SMD338975	80063	A457
SMD338891	80063	A103	SMD338943	80063	A442	SMD338976	80063	A550
SMD338891	80063	A104	SMD338946	80063	A375	SMD338978	80063	A038
SMD338891	80063	A401	SMD338947	80063	A464	SMD338978	80063	A039
SMD338891	80063	A402	SMD338948	80063	A533	SMD338979	80063	A347
SMD338891	80063	A592	SMD338948	80063	A534	SMD338979	80063	A348
SMD338891	80063	B099	SMD338948	80063	A535	SMD338979	80063	A349
SMD338891	80063	B100	SMD338948	80063	A536	SMD338980	80063	A353
SMD338893	80063	A479	SMD338948	80063	A537	SMD338986	80063	A160
SMD338894	80063	A484	SMD338948	80063	A538	SMD338986	80063	A447
SMD338895	80063	A480	SMD338948	80063	A539	SMD338989GR1	80063	B782
SMD338896	80063	A481	SMD338948	80063	A540	SMD338989GR2	80063	B784
SMD338897	80063	A188	SMD338949	80063	A466	SMD338989GR3	80063	B786
SMD338897	80063	A482	SMD338950	80063	A335	SMD338989GR4	80063	B788
SMD338898	80063	A189	SMD338950	80063	A336	SMD338990GR1	80063	B733
SMD338898	80063	A483	SMD338951	80063	A458	SMD338990GR2	80063	B735
SMD338898	80063	A577	SMD338951	80063	A459	SMD338990GR4	80063	B737
SMD338901	80063	A578	SMD338952	80063	A040	SMD338990GR6	80063	B739
SMD338902	80063	A190	SMD338952	80063	A496	SMD338990GR7	80063	B741
SMD338902	80063	A579	SMD338953	80063	A544	SMD338990GR8	80063	B743
SMD338903	80063	A580	SMD338956	80063	A385	SMD338991GR1	80063	B745
SMD338904	80063	A581	SMD338956	80063	A386	SMD338991GR2	80063	B747
SMD338905	80063	A582	SMD338957	80063	A541	SMD338992	80063	B714
SMD338906	80063	A583	SMD338957	80063	A542	SMD338993	80063	B715
SMD338907	80063	A584	SMD338957	80063	A543	SMD338995-1	80063	B783
SMD338909	80063	A575	SMD338958	80063	A454	SMD338995-2	80063	B785

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SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.
SMB338995-3	80063	B787
SMB338995-4	80063	B789
SMB338999	80063	B774
SMB339000	80063	B760
SMB339001	80063	B755
SMB339002	80063	B771
SMB339003	80063	B727
SMB339004	80063	B763
SMB339007	80063	B728
SMB339008	80063	B173
SMB339008	80063	B731
SMB339008	80063	B732
SMB339009	80063	A886
SMB339009	80063	B730
SMB339011	80063	A655
SMB339011	80063	B174
SMB339011	80063	B707
SMB339013-1	80063	B722
SMB339013-2	80063	B723
SMB339021	80063	A863
SMB339022	80063	A858
SMB339025	80063	A844
SMB339026	80063	A867
SMB339028	80063	A309
SMB339028	80063	A846
SMB339033-1	80063	A854
SMB339033-2	80063	A856
SMB339040	80063	A610
SMB339040	80063	A634
SMB339042	80063	A609
SMB339042	80063	A633
SMB339043	80063	A626
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SMB339044	80063	A625
SMB339044	80063	A650
SMB339045	80063	A624
SMB339045	80063	A649
SMB339047	80063	A617
SMB339047	80063	A642
SMB339048	80063	A621
SMB339048	80063	A646
SMB339049	80063	A623
SMB339049	80063	A648
SMB339049	80063	A954
SMB339051	80063	A619
SMB339051	80063	A644
SMB339054	80063	A608
SMB339056	80063	A607
SMB339057	80063	A606
SMB339061	80063	A604
SMB339066	80063	A639
SMB339071	80063	A670
SMB339071	80063	A671
SMB339072	80063	A667
SMB339073	80063	A672
SMB339073	80063	A673
SMB339074	80063	A669
SMB339074	80063	A678
SMB339074	80063	B469
SMB339075	80063	A668
SMB339075	80063	A677
SMB339077	80063	A675
SMB339078	80063	A679
SMB339079	80063	A676
SMB339080	80063	A681
SMB339083	80063	A680
SMB339085	80063	A897
SMB339086	80063	A822
SMB339087	80063	A830
SMB339088	80063	A831
SMB339089	80063	A827
SMB339089	80063	A828
SMB339089	80063	A829
SMB339090	80063	A826
SMB339091	80063	A832
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SMB339093	80063	A654
SMB339097	80063	A884
SMB339098	80063	A488
SMB339098	80063	A494
SMB339100	80063	B804
SMB339101	80063	A838
SMB339102	80063	A899
SMB339104	80063	B810
SMB339105	80063	A652
SMB339106	80063	A653
SMB339107	80063	A898
SMB339108	80063	B807
SMB339108	80063	B808
SMB339108	80063	B809
SMB339110	80063	A889
SMB339110	80063	B022
SMB339111	80063	A871
SMB339112	80063	A695
SMB339112	80063	A836
SMB339114	80063	A885
SMB339132	80063	A288
SMB339132	80063	A289
SMB339132	80063	A294
SMB339141	80063	A290
SMB339141	80063	A291
SMB339141	80063	A878
SMB339141	80063	A879
SMB339141	80063	A880
SMB339141	80063	A881
SMB339141	80063	A882
SMB339141	80063	A883
SMB339150	80063	A684
SMB339151	80063	A685
SMB339152	80063	A686
SMB339153	80063	A029
SMB339153	80063	A687
SMB339158	80063	A473

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	
REF NO.	MFG CO.	ITEM SEQ. NO.
SMB359091	80063	B811
SMB359092	80063	A344
SMB359092	80063	A571
SMB359094	80063	A848
SMB359125	80063	A659
SMB359125	80063	A660
SMB359179	80063	B327
SMB446601	80063	A688
SMB446603	80063	B750
SMB446606	80063	A901
SMB446607	80063	A692
SMB446613	80063	B796
SMB446614	80063	B802
SMB446615	80063	B800
SMB446619	80063	B752
SMB446620	80063	B778
SMB446620-2	80063	B779
SMB446621	80063	B780
SMB446621-2	80063	B781
SMB446622	80063	A509
SMB446630	80063	B028
SMB446635	80063	B140
SMB446636	80063	B146
SMB446637	80063	B153
SMB446638	80063	B122
SMB446639	80063	B138
SMB446640	80063	B139
SMB446642	80063	B150
SMB446643	80063	B128
SMB446643	80063	B133
SMB446645	80063	B144
SMB446646	80063	B145
SMB446647	80063	B151
SMB446647	80063	B152
SMB446648	80063	B125
SMB446649	80063	B142
SMB446649	80063	B143
SMB446652	80063	B130
SMB446653	80063	B124
SMB446656	80063	A890
SMB446657	80063	B012
SMB446658	80063	B007
SMB446659	80063	A961
SMB446660	80063	B154
SMB446660-1	80063	B158
SMB446661	80063	B160
SMB446662	80063	A958
SMB446664	80063	B060
SMB446665	80063	B066
SMB446666	80063	A965
SMB446667	80063	A966
SMB446668	80063	B040
SMB446669	80063	B085
SMB446671	80063	B114
SMB446671	80063	B115
SMB446672	80063	B093
SMB446672	80063	B094
SMB446673	80063	B096
SMB446677	80063	A106
SMB446677	80063	A107
SMB446677	80063	A108
SMB446677	80063	A109
SMB446677	80063	A110
SMB446678	80063	B113
SMB446679	80063	B102
SMB446683	80063	A982
SMB446686	80063	A995
SMB446687	80063	B001
SMB446688	80063	A989
SMB446689-1	80063	A996
SMB446689-2	80063	A997
SMB446689-3	80063	A998
SMB446690	80063	A983
SMB446691	80063	A999
SMB446692	80063	A984
SMB446694	80063	A980
SMB446699	80063	B002
SMB446699	80063	B003
SMB446699	80063	B004
SMB446700	80063	A993
SMB446700	80063	A994
SMB446701	80063	B005
SMB446702	80063	A986
SMB446703	80063	B025
SMB446705	80063	B162
SMB446706	80063	B164
SMB446702	80063	B165
SMB446708	80063	A968
SMB446709	80063	B170
SMB446700	80063	A970
SMB446712	80063	B030
SMB446713	80063	B031
SMB446715	80063	A506
SMB446715-1	80063	A514
SMB446716	80063	.B447
SMB446717	80063	B493
SMB446718	80063	B671
SMB446719	80063	B672
SMB446720	80063	A346
SMB446721	80063	A498
SMB446724	80063	B537
SMB446725	80063	A512
SMB446725-1	80063	B751
SMB446725-2	80063	B753
SMB446725-3	80063	B159
SMB446725-4	80063	B103
SMB446726	80063	B042
SMB446727	80063	A510
SMB446732	80063	B795
SMB446733	80063	B097
SMB446734	80063	A834
SMB446735	80063	B011
SMB446802	80063	A327
SMB446808	80063	A312
SMB446808	80063	A313

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMB446808	80063	A314	SMB446846-1	80063	A012	SMC338342	80063	B395
SMB446808	80063	A315	SMB446846-1	80063	A018	SMC338346	80063	B389
SMB446814	80063	A159	SMB446846-2	80063	A013	SMC338371	80063	B422
SMB446816	80063	A255	SMB446846-2	80063	A019	SMC338477	80063	B453
SMB446816	80063	A256	SMB446848	80063	A179	SMC338380	80063	B455
SMB446817	80063	A192	SMB446848	80063	A181	SMC338405	80063	B392
SMB446818	80063	A238	SMB446848	80063	A183	SMC338413	80063	B321
SMB446819	80063	A168	SMB446848	80063	A185	SMC338413-1	80063	B330
SMB446819	80063	A170	SMB446848-2	80063	A180	SMC338413-1	80063	B333
SMB446819	80063	A172	SMB446848-2	80063	A182	SMC338413-1	80063	B335
SMB446819	80063	A174	SMB446848-2	80063	A184	SMC338421	80063	B329
SMB446820	80063	A033	SMB446848-2	80063	A186	SMC338431	80063	B611
SMB446821	80063	A244	SMB446849	80063	A047	SMC338431-1	80063	B616
SMB446822	80063	A249	SMB446850	80063	A326	SMC338431-2	80063	B621
SMB446822	80063	A250	SMB446852	80063	A077	SMC338431-3	80063	B617
SMB446822	80063	A251	SMB446853	80063	A088	SMC338432	80063	B618
SMB446822	80063	A252	SMB446854	80063	A078	SMC338439	80063	B572
SMB446823	80063	A177	SMB446856	80063	A274	SMC338439	80063	B580
SMB446823	80063	A892	SMB446856	80063	A275	SMC338439	80063	B588
SMB446824	80063	A178	SMB446856	80063	A276	SMC338457	80063	B363
SMB446824	80063	A896	SMB446856	80063	A277	SMC338458	80063	B364
SMB446827	80063	A204	SMB446857	80063	A031	SMC338465	80063	B370
SMB446828	80063	A267	SMB446858	80063	A030	SMC338465-1	80063	B375
SMB446830	80063	A273	SMB446862	80063	A295	SMC338488	80063	B442
SMB446831	80063	A259	SMB446862	80063	A296	SMC338489	80063	B443
SMB446833	80063	A034	SMB446863	80063	A284	SMC338514	80063	B466
SMB446833	80063	A035	SMB446864	80063	A285	SMC338518	80063	B506
SMB446833	80063	A036	SMB446865	80063	A063	SMC338518-1	80063	B513
SMB446833	80063	A037	SMB446866	80063	A054	SMC338519	80063	B507
SMB446836	80063	A105	SMB446866	80063	A055	SMC338520	80063	B508
SMB446837	80063	A099	SMB446866	80063	A381	SMC338527	80063	B498
SMB446837	80063	A100	SMB446867	80063	A195	SMC338535	80063	B503
SMB446838	80063	A096	SMB446867	80063	A196	SMC338537	80063	B500
SMB446839	80063	A112	SMB446867	80063	A197	SMC338540	80063	B494
SMB446845	80063	A240	SMB446867	80063	A198	SMC338540-1	80063	B497
SMB446845	80063	A241	SMB446870	80063	A059	SMC338554-3	80063	B544
SMB446846	80063	A008	SMB446871	80063	A032	SMC338554-3	80063	B554
SMB446846	80063	A014	SMB595213	80063	A859	SMC338554-4	80063	B549

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SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER		FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER		FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	
REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.	REF NO.	MFG CO.	ITEM SEQ. NO.
SMC338554-4	80063	B559	SMC338845	80063	A793	SMC339039	80063	A600
SMC338554GRI	80063	B542	SMC338845-1	80063	A782	SMC339041	80063	A615
SMC338554GRII	80063	B552	SMC338845-1	80063	A788	SMC339046	80063	A616
SMC338564	80063	B600	SMC338845-1	80063	A801	SMC339046	80063	A641
SMC338571	80063	B607	SMC338845-1	80063	A807	SMC339046-1	80063	A618
SMC338595	80063	B639	SMC338859	80063	A733	SMC339046-1	80063	A643
SMC338595	80063	B640	SMC338859-1	80063	A749	SMC339050	80063	A620
SMC338595	80063	B641	SMC338862	80063	A747	SMC339050	80063	A645
SMC338634	80063	B349	SMC338873	80063	A750	SMC339052	80063	A622
SMC338658	80063	A942	SMC338873-1	80063	A762	SMC339052	80063	A647
SMC338665	80063	A909	SMC338874	80063	A761	SMC339053	80063	A605
SMC338667	80063	A923	SMC338886	80063	A598	SMC339065	80063	A640
SMC338669	80063	A928	SMC338899	80063	A566	SMC339067	80063	A629
SMC338674	80063	A912	SMC338900	80063	A585	SMC339070	80063	A666
SMC338682	80063	B258	SMC338915	80063	A366	SMC339076	80063	A674
SMC338683	80063	B261	SMC338927	80063	A445	SMC339096	80063	A870
SMC338693	80063	B273	SMC338928	80063	A446	SMC339109	80063	A887
SMC338700	80063	B253	SMC338941	80063	A415	SMC339109	80063	A888
SMC338705	80063	B233	SMC338955	80063	A463	SMC339159	80063	B578
SMC338721	80063	B192	SMC338961	80063	A363	SMC339159	80063	B586
SMC338726	80063	B197	SMC338963	80063	A451	SMC339159	80063	B594
SMC338726-1	80063	B207	SMC338996	80063	B749	SMC446608	80063	B791
SMC338727	80063	B201	SMC338996-1	80063	B746	SMC446609	80063	B794
SMC338755	80063	B058	SMC338996-13	80063	B738	SMC446616	80063	B799
SMC338756	80063	B072	SMC338996-2	80063	B734	SMC446616-13	80063	B095
SMC338763	80063	B069	SMC338996-4	80063	B740	SMC446618	80063	B776
SMC338772	80063	B043	SMC338996-5	80063	B742	SMC446618-1	80063	B790
SMC338772-1	80063	B053	SMC338996-7	80063	B744	SMC446624	80063	B754
SMC338773	80063	B051	SMC338996-8	80063	B748	SMC446634	80063	B149
SMC338776	80063	B016	SMC338996-9	80063	B736	SMC446644	80063	B129
SMC338805	80063	B689	SMC339006	80063	B770	SMC446663	80063	B055
SMC338806	80063	B692	SMC339012	80063	B716	SMC446663-1	80063	B065
SMC338809	80063	B034	SMC339012-1	80063	B718	SMC446663-2	80063	B063
SMC338827	80063	A716	SMC339014	80063	B721	SMC446670	80063	B088
SMC338828	80063	A715	SMC339015	80063	B717	SMC446676	80063	B098
SMC338836	80063	A725	SMC339027	80063	A861	SMC446680	80063	A977
SMC338839	80063	A729	SMC339030	80063	A853	SMC446680-2	80063	A990
SMC338845	80063	A774	SMC339034	80063	A862	SMC446680-3	80063	A981

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.
SMC446681	80063	A985
SMC446704	80063	B161
SMC446704-1	80063	B163
SMC446801	80063	A003
SMC446804	80063	A292
SMC4466804-1	80063	A293
SMC446805	80063	A278
SMC446805-1	80063	A283
SMC446807	80063	A311
SMC446807-1	80063	A316
SMC446825	80063	A020
SMC446825-1	80063	A028
SMC446826	80063	A202
SMC446834	80063	A156
SMC446840	80063	A161
SMC446851	80063	A073
SMC446851-1	80063	A083
SMC446851-1	80063	A084
SMC446851-2	80063	A079
SMC446856	80063	A263
SMC446859	80063	A325
SMC446860	80063	A286
SMC446860-1	80063	A287
SMC595203	80063	A368
SMD338341	80063	B279
SMD338341-1	80063	B402
SMD338341-10	80063	B403
SMD338341-11	80063	B390
SMD338341-12	80063	B396
SMD338341-13	80063	B486
SMD338341-14	80063	B566
SMD338341-15	80063	B283
SMD338341-16	80063	B309
SMD338341-16	80063	B491
SMD338341-2	80063	B285
SMD338341-2	80063	B316
SMD338341-3	80063	B612
SMD338341-4	80063	B318
SMD338341-7	80063	B287
SMD338341-8	80063	B314
SMD338341-8	80063	B406
SMD338341-8	80063	B634
SMD338341-8	80063	B636
SMD338341-8	80063	B638
SMD338341-8	80063	B642
SMD338341-9	80063	B441
SMD338341-9	80063	B459
SMD338448	80063	B350
SMD338448-1	80063	B382
SMD338448-2	80063	B360
SMD338448-2	80063	B362
SMD338448-3	80063	B380
SMD338448-4	80063	B355
SMD338448-5	80063	B372
SMD338497	80063	B460
SMD338497-1	80063	B470
SMD338498	80063	B471
SMD338574	80063	B517
SMD338635	80063	B344
SMD338649	80063	A933
SMD338649-1	80063	A943
SMD338649-1	80063	A945
SMD338649-1	80063	A953
SMD338649-2	80063	A938
SMD338649-3	80063	A949
SMD338649-4	80063	A934
SMD338650	80063	A936
SMD338664	80063	A906
SMD338664-1	80063	A922
SMD338664-2	80063	A910
SMD338664-2	80063	A911
SMD338664-4	80063	A917
SMD338664-4	80063	A918
SMD338681	80063	B187
SMD338681-1	80063	B236
SMD338681-1	80063	B271
SMD338681-8	80063	B276
SMD338705-1	80063	B240
SMD338812	80063	A689
SMD338812-2	80063	A787
SMD338812-3	80063	A771
SMD338812-3	80063	A773
SMD338812-4	80063	A732
SMD338812-5	80063	A726
SMD338812-6	80063	A720
SMD338812-6	80063	A734
SMD338812-6	80063	A751
SMD338812-7	80063	A817
SMD338812-8	80063	A775
SMD338812-8	80063	A794
SMD338825	80063	A772
SMD338850	80063	A702
SMD338855	80063	A711
SMD338954	80063	A586
SMD338962	80063	A358
SMD339010	80063	A919
SMD339020	80063	A843
SMD339020-1	80063	A868
SMD339020-2	80063	A849
SMD339020-2	80063	A850
SMD339020-3	80063	A851
SMD339038	80063	A599
SMD339038-2	80063	A612
SMD339038-3	80063	A613
SMD339038-3	80063	A614
SMD339038-4	80063	A611
SMD339064	80063	A628
SMD339064-1	80063	A635
SMD339064-4	80063	A637
SMD339064-4	80063	A638
SMD339064-5	80063	A636
SMD339069	80063	A663
SMD339115	80063	A002
SMD339154	80063	A842

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.
SMD359123	80063	A332
SMD359123-1	80063	A444
SMD359123-10	80063	A383
SMD359123-11	80063	A355
SMD359123-11	80063	A379
SMD359123-11	80063	A487
SMD359123-11	80063	A493
SMD359123-11	80063	A521
SMD359123-11	80063	A531
SMD359123-12	80063	A590
SMD359123-13	80063	A343
SMD359123-13	80063	A570
SMD359123-14	80063	A572
SMD359123-15	80063	A357
SMD359123-16	80063	A351
SMD359123-16	80063	A352
SMD359123-17	80063	A470
SMD359123-2	80063	A490
SMD359123-2	80063	A491
SMD359123-3	80063	A485
SMD359123-4	80063	A388
SMD359123-4	80063	A389
SMD359123-4	80063	A390
SMD359123-5	80063	A391
SMD359123-5	80063	A392
SMD359123-5	80063	A393
SMD359123-5	80063	A394
SMD359123-6	80063	A395
SMD359123-6	80063	A396
SMD359123-6	80063	A397
SMD359123-7	80063	A342
SMD359123-7	80063	A354
SMD359123-7	80063	A378
SMD359123-7	80063	A382
SMD359123-7	80063	A486
SMD359123-7	80063	A492
SMD359123-7	80063	A520
SMD359123-7	80063	A530
SMD359123-7	80063	A568
SMD359123-8	80063	A337
SMD359123-8	80063	A525
SMD359123-9	80063	A456
SMD359123-9	80063	A549
SMD359124	80063	A398
SMD359124-2	80063	A408
SMD359124-4	80063	A410
SMD359124-4	80063	A411
SMD359124-5	80063	A412
SMD359124-5	80063	A413
SMD359124-6	80063	A403
SMD359124-6	80063	A404
SMD359124-6	80063	A405
SMD359124-6	80063	A406
SMD359124-7	80063	A440
SMD359124-7	80063	A441
SMD446604	80063	A331
SMD446604-1	80063	A873
SMD446604-1	80063	A874
SMD446604-1	80063	A875
SMD446604-10	80063	A682
SMD446604-11	80063	A891
SMD446604-2	80063	A876
SMD446604-2	80063	A877
SMD446604-3	80063	A683
SMD446604-5	80063	A821
SMD446604-6	80063	A835
SMD446604-7	80063	A824
SMD446604-7	80063	A894
SMD446604-8	80063	A656
SMD446604-8	80063	A823
SMD446604-8	80063	A839
SMD446604-8	80063	A893
SMD446604-9	80063	A657
SMD446604-9	80063	A840
SMD446617	80063	B704
SMD446617-2	80063	B708
SMD446617-3	80063	B709
SMD446617-3	80063	B767
SMD446617-5	80063	B711
SMD446617-6	80063	B759
SMD446617-8	80063	B725
SMD446617-8	80063	B726
SMD446623	80063	B773
SMD446625	80063	B724
SMD446626	80063	A904
SMD446626-1	80063	B175
SMD446626-2	80063	B177
SMD446627	80063	B673
SMD446627-1	80063	B678
SMD446628	80063	B686
SMD446629	80063	A955
SMD446629-1	80063	B044
SMD446629-1	80063	B074
SMD446629-2	80063	B021
SMD446629-3	80063	B038
SMD446629-3	80063	B086
SMD446629-4	80063	B041
SMD446629-5	80063	B020
SMD446629-6	80063	B019
SMD446629-7	80063	B029
SMD446629-8	80063	B035
SMD446633	80063	B117
SMD446633-1	80063	B120
SMD446633-2	80063	B121
SMD446633-3	80063	B141
SMD446633-4	80063	B126
SMD446633-4	80063	B131
SMD446633-5	80063	B127
SMD446633-5	80063	B132
SMD446641	80063	B137
SMD446711	80063	B032
SMD446806	80063	A297
SMD446806-1	80063	A298
SMD446806-1	80063	A300

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER		ITEM SEQUENCE NUMBER
REF NO.	MFG CO.	ITEM SEQ. NO.
SMD446806-1	80063	A301
SMD446806-2	80063	A304
SMD446806-2	80063	A305
SMD446810	80063	A308
SMD446813	80063	A004
SMD446813-1	80063	A067
SMD446813-1	80063	A068
SMD446813-1	80063	A069
SMD446813-10	96906	A167
SMD446813-10	96906	A214
SMD446813-10	96906	A217
SMD446813-10	96906	A243
SMD446813-14	80063	A021
SMD446813-15	80063	A022
SMD446813-16	80063	A203
SMD446813-2	80063	A070
SMD446813-2	80063	A071
SMD446813-3	80063	A072
SMD446813-4	80063	A009
SMD446813-4	80063	A015
SMD446813-4	80063	A049
SMD446813-4	80063	A093
SMD446813-4	80063	A193
SMD446813-4	80063	A199
SMD446813-4	80063	A245
SMD446813-4	80063	A257
SMD446813-4	80063	A260
SMD446813-4	80063	A268
SMD446813-5	80063	A239
SMD446813-6	80063	A158
SMD446813-8	80063	A065
SMD446813-9	80063	A064
SMD446832	80063	A092
SMD446832-1	80063	A113
SMD446841	80063	A052
SMD446841-1	80063	A053
SMD446861	80063	A324
SMD595200	80063	A367
SMD595200-1	80063	A374
SMD595200-2	80063	A371
SMD595200-2	80063	A372
SMD595200-2	80063	A373
TS101P01	81349	A523
TS101P01	81349	A524
TS101P01	81349	B765
TS102P01	81349	A234
TS102P01	81349	A515
TS102P01	81349	A516
TS102P01	81349	A517
TS102P01	81349	A518
TS102P01	81349	A519
TS102U03	81349	A225
TS103P01	81349	A226
TS103P01	81349	A227
TS103P01	81349	A228
TS103P01	81349	A229
TS103P01	81349	A230
TS103P01	81349	A528
TS103P01	81349	A529
TS103U02	81349	A220
TS103U02	81349	A221
TS103U02	81349	A222
TS103U02	81349	A223
TS103U02	81349	A224
TS103U02	81349	B087
1205-00-00	78189	A777
1205-00-00	78189	A796
1205-00-00	78189	B328
129B16-1600	86242	B812
13301	43991	A601
13301	43991	A630

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A1	A002	A2A1A5C317	A109	A2A1A5R341	A140
A2	A003	A2A1A5C318	A111	A2A1A5R342	A141
A2A1	A004	A2A1A5C319	A110	A2A1A5R345	A142
A2A1A1	A008	A2A1A5C330	A104	A2A1A5R346	A143
A2A1A1H1	A013	A2A1A5H1	A101	A2A1A5R347	A146
A2A1A1MP1	A012	A2A1A5H2	A102	A2A1A5R348	A144
A2A1A10	A198	A2A1A5H3	A113	A2A1A5R349	A145
A2A1A11	A267	A2A1A5H4	A114	A2A1A5R350	A147
A2A1A11C308	A270	A2A1A5H5	A097	A2A1A5R351	A148
A2A1A11C325	A271	A2A1A5H6	A098	A2A1A5R352	A149
A2A1A11C326	A272	A2A1A5L302	A112	A2A1A5R353	A150
A2A1A11L301	A273	A2A1A5MP1	A096	A2A1A5R354	A151
A2A1A2	A014	A2A1A5MP2	A099	A2A1A5R355	A152
A2A1A2H1	A019	A2A1A5MP3	A100	A2A1A5R356	A154
A2A1A2MP1	A018	A2A1A5R309	A115	A2A1A5R357	A153
A2A1A3	A052	A2A1A5R310	A120	A2A1A5R358	A155
A2A1A3H1	A053	A2A1A5R311	A122	A2A1A5TB301	A156
A2A1A4	A073	A2A1A5R313	A116	A2A1A6	A159
A2A1A4H1	A085	A2A1A5R314	A123	A2A1A6H1	A160
A3A1A4H2	A086	A2A1A5R315	A121	A2A1A7	A195
A2A1A4H3	A087	A2A1A5R139	A117	A2A1A8	A196
A2A1A4H4	A089	A2A1A5R320	A118	A2A1A9	A197
A2A1A4H5	A090	A2A1A5R321	A119	A2A1C301	A038
A2A1A4H6	A091	A2A1A5R322	A124	A2A1C302	A039
A2A1A4MP1	A077	A2A1A5R323	A125	A2A1C303	A042
A2A1A4MP2	A079	A2A1A5R324	A127	A2A1C306	A048
A2A1A4R312	A080	A2A1A5R325	A126	A2A1C309	A039
A2A1A4R317	A082	A2A1A5R326	A128	A2A1C321	A034
A2A1A4R318	A081	A2A1A5R327	A129	A2A1C322	A035
A2A1A4TB302	A088	A2A1A5R328	A130	A2A1C323	A036
A2A1A4W1	A078	A2A1A5R329	A131	A2A1C324	A037
A2A1A4XC301	A083	A2A1A5R330	A133	A2A1C327	A043
A2A1A4XC302	A084	A2A1A5R331	A134	A2A1C328	A044
A2A1A5	A092	A2A1A5R332	A132	A2A1DS301	A176
A2A1A5C310	A103	A2A1A5R333	A135	A2A1E1	A220
A2A1A5C313	A105	A2A1A5R334	A136	A2A1E10	A250
A2A1A5C314	A106	A2A1A5R335	A137	A2A1E11	A251
A2A1A5C315	A107	A2A1A5R338	A138	A2A1E12	A252
A2A1A5C316	A108	A2A1A5R339	A139	A2A1E2	A221

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A2A1E3	A222
A2A1E4	A223
A2A1E5	A225
A2A1E6	A224
A2A1E9	A249
A2A1F301	A157
A2A1H1	A009
A2A1H10	A024
A2A1H11	A025
A2A1H12	A026
A2A1H13	A027
A2A1H14	A040
A2A1H15	A041
A2A1H16	A045
A2A1H17	A046
A2A1H18	A047
A2A1H19	A049
A2A1H2	A010
A2A1H20	A050
A2A1H21	A051
A2A1H22	A056
A2A1H23	A057
A2A1H24	A058
A2A1H25	A060
A2A1H26	A061
A2A1H27	A062
A2A1H28	A064
A2A1H29	A065
A2A1H3	A011
A2A1H30	A066
A2A1H31	A074
A2A1H32	A075
A2A1H33	A076
A2A1H34	A093
A2A1H35	A094
A2A1H36	A095
A2A1H37	A162
A2A1H38	A163
A2A1H39	A166
A2A1H4	A015
A2A1H40	A167
A2A1H41	A193
A2A1H42	A194
A2A1H43	A199
A2A1H44	A200
A2A1H45	A201
A2A1H46	A203
A2A1H47	A204
A2A1H48	A205
A2A1H49	A213
A2A1H5	A016
A2A1H50	A214
A2A1H51	A216
A2A1H52	A217
A2A1H53	A231
A2A1H54	A232
A2A1H55	A233
A2A1H56	A235
A2A1H57	A236
A2A1H58	A237
A2A1H59	A239
A2A1H6	A017
A2A1H60	A242
A2A1H61	A243
A2A1H62	A245
A2A1H63	A246
A2A1H64	A247
A2A1H68	A253
A2A1H69	A254
A2A1H7	A021
A2A1H70	A257
A2A1H71	A258
A2A1H72	A260
A2A1H73	A261
A2A1H74	A262
A2A1H75	A264
A2A1H76	A265
A2A1H77	A266
A2A1H78	A268
A2A1H79	A269
A2A1H8	A022
A2A1H81	A169
A2A1H82	A171
A2A1H83	A173
A2A1H84	A175
A2A1H9	A023
A2A1J301	A054
A2A1J302	A055
A2A1J303	A059
A2A1J305	A063
A2A1J306	A164
A2A1J307	A165
A2A1K301	A202
A2A1MP1	A161
A2A1MP2	A168
A2A1MP3	A170
A2A1MP4	A172
A2A1MP5	A174
A2A1MP6	A274
A2A1MP7	A275
A2A1MP8	A276
A2A1MP9	A277
A2A1M301	A192
A2A1S303	A241
A2A1R301	A209
A2A1R302	A210
A2A1R303	A211
A2A1R304	A212
A2A1R305	A215
A2A1R306	A218
A2A1R307	A219
A2A1R308	A206
A2A1R316	A207
A2A1R336	A208
A2A1S301	A248
A2A1S302	A240
A2A1S304	A238

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A2A1S305	A244	A2A2	A297	A2W2H2	A291
A2A1T301	A255	A2A2A1	A298	A2W2P1	A288
A2A1T302	A256	A2A2A2	A300	A2W2P2	A289
A2A1T303	A259	A2A2A3	A301	A2W2W1	A287
A2A1T304	A263	A2A2A4	A304	A2W601	A278
A2A1V301	A067	A2A2A5	A305	A2W601MP1	A279
A2A1V302	A068	A2A2A6	A308	A2W601MP2	A280
A2A1V303	A069	A2A2A7	A311	A2W601MP3	A281
A2A1V304	A070	A2A2ATH1	A316	A2W601MP4	A282
A2A1V305	A072	A2A2ATMP1	A312	A2W601P601	A285
A2A1V306	A071	A2A2ATMP2	A313	A2W601P602	A284
A2A1W1W1	A028	A2A2ATMP3	A314	A2W601W1	A283
A2A1W10	A188	A2A2ATMP4	A315	A2W701	A292
A2A1W11	A189	A2A2H1	A299	A2W701P701	A294
A2A1W12	A190	A2A2H10	A319	A2W701P702	A295
A2A1W19	A032	A2A2H11	A320	A2W701P703	A296
A2A1W2	A030	A2A2H12	A321	A2W701W1	A293
A2A1W3	A031	A2A2H13	A323	A3	A331
A2A1W301	A020	A2A2H2	A302	A3A1	A332
A2A1W301P301	A029	A2A2H3	A303	A3A1A1	A367
A2A1W4	A177	A2A2H4	A306	A3A1A1A1	A368
A2A1W4W1	A178	A2A2H5	A307	A3A1A1H1	A369
A2A1W5	A179	A2A2H6	A309	A3A1A1H2	A370
A2A1W5W1	A180	A2A2H7	A310	A3A1A1H3	A374
A2A1W6	A181	A2A2H8	A322	A3A1A1H4	A376
A2A1W6W1	A182	A2A2H9	A318	A3A1A1MP1	A371
A2A1W7	A183	A2A2MP1	A317	A3A1A1MP2	A372
A2A1W7W1	A184	A2A3	A324	A3A1A1MP3	A373
A2A1W8	A185	A2HT1	A325	A3A1A1MP4	A375
A2A1W8W1	A186	A2H1	A005	A3A1A2C202	A404
A2A1W9	A187	A2H2	A006	A3A1A2C203	A403
A2A1XDS301	A191	A2H3	A007	A3A1A2C204	A410
A3A1XF301	A158	A2H4	A328	A3A1A2C205	A409
A2A1XV301	A226	A2H5	A329	A3A1A2C206	A402
A2A1XV302	A227	A2H6	A330	A3A1A2C207	A406
A2A1XV303	A228	A2MK1	A326	A3A1A2C208	A401
A2A1XV304	A229	A2MP1	A327	A3A1A2C209	A407
A2A1XV305	A234	A2W2	A286	A3A1A2C210	A408
A2A1XV306	A230	A2W2H1	A290	A3A1A2C211	A405

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A1A2C212	A412	A3A1A4W1	A475	A3A1A8W9	A584
A3A1A2C213	A413	A3A1A4W2	A476	A3A1A9	A589
A3A1A2C223	A411	A3A1A5	A479	A3A1A9C217	A592
A3A1A2R201	A429	A3A1A5R213	A484	A3A1A9C218	A593
A3A1A2R204	A433	A3A1A5W1	A480	A3A1A9R231	A597
A3A1A2R205	A417	A3A1A5W2	A481	A3A1A9T203	A598
A3A1A2R206	A421	A3A1A5W3	A482	A3A1A9W1	A594
A3A1A2R207	A423	A3A1A5W4	A483	A3A1A9W2	A595
A3A1A2R208	A434	A3A1A6	A506	A3A1A9W3	A596
A3A1A2R209	A439	A3A1A6J205	A514	A3A1C214	A351
A3A1A2R210	A424	A3A1A6R237	A513	A3A1C216	A352
A3A1A2R211	A432	A3A1A6W1	A509	A3A1C219	A357
A3A1A2R212	A425	A3A1A6W2	A510	A3A1C220	A347
A3A1A2R214	A416	A3A1A6W3	A511	A3A1C221	A348
A3A1A2R215	A438	A3A1A6W4	A512	A3A1C222	A349
A3A1A2R216	A437	A3A1A7	A548	A3A1C224	A353
A3A1A2R217	A435	A3A1A7C225	A552	A3A1DS201	A461
A3A1A2R218	A430	A3A1A7R232	A560	A3A1E1	A499
A3A1A2R219	A431	A3A1A7R233	A561	A3A1E2	A500
A3A1A2R220	A427	A3A1A7R234	A562	A3A1E3	A501
A3A1A2R221	A428	A3A1A7S201	A563	A3A1E4	A502
A3A1A2R222	A426	A3A1A7W1	A553	A3A1E5	A503
A3A1A2R224	A422	A3A1A7W2	A554	A3A1E6	A504
A3A1A2R225	A418	A3A1A7W3	A555	A3A1E7	A505
A3A1A2R226	A419	A3A1A7W4	A556	A3A1F201	A443
A3A1A2R227	A436	A3A1A7W5	A557	A3A1H1	A337
A3A1A2R228	A440	A3A1A7W6	A558	A3A1H10	A354
A3A1A2R236	A420	A3A1A7W7	A559	A3A1H11	A355
A3A1A2R240	A441	A3A1A8	A566	A3A1H12	A356
A3A1A2TB201	A398	A3A1A8T201	A585	A3A1H13	A359
A3A1A2TB201	A442	A3A1A8W1	A575	A3A1H14	A360
A3A1A2W1	A414	A3A1A8W1W1	A576	A3A1H15	A361
A3A1A2W2	A415	A3A1A8W2	A577	A3A1H16	A364
A3A1A3	A445	A3A1A8W3	A578	A3A1H17	A365
A3A1A3K1	A447	A3A1A8W4	A579	A3A1H18	A486
A3A1A3MP1	A445	A3A1A8W5	A580	A3A1H19	A487
A3A1A4	A474	A3A1A8W6	A581	A3A1H2	A338
A3A1A4R203	A478	A3A1A8W7	A582	A3A1H20	A488
A3A1A4R235	A477	A3A1A8W8	A583	A3A1H21	A489

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SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A1H22	A456	A3A1H6	A343	A3A1MP21	A533
A3A1H23	A457	A3A1H60	A569	A3A1MP22	A534
A3A1H24	A378	A3A1H61	A570	A3A1MP23	A535
A3A1H25	A379	A3A1H62	A571	A3A1MP24	A536
A3A1H26	A380	A3A1H63	A572	A3A1MP25	A537
A3A1H27	A382	A3A1H64	A573	A2A1MP26	A538
A3A1H28	A383	A3A1H65	A574	A3A1MP27	A539
A3A1H29	A384	A3A1H66	A587	A3A1MP28	A540
A3A1H3	A339	A3A1H67	A588	A3A1MP29	A541
A3A1H30	A449	A3A1H68	A590	A3A1MP3	A358
A3A1H31	A450	A3A1H69	A591	A3A1MP30	A542
A3A1H32	A452	A3A1H7	A344	A3A1MP31	A543
A3A1H33	A453	A3A1H70	A387	A3A1MP32	A544
A3A1H34	A460	A3A1H71	A399	A3A1MP4	A363
A3A1H35	A471	A3A1H72	A400	A3A1MP5	A366
A3A1H36	A472	A3A1H73	A362	A3A1MP6	A485
A3A1H37	A473	A3A1H74	A492	A3A1MP7	A490
A3A1H38	A497	A3A1H75	A493	A3A1MP8	A491
A3A1H39	A507	A3A1H76	A494	A3A1MP9	A385
A3A1H4	A340	A3A1H77	A495	A3A1R230	A469
A3A1H40	A508	A3A1H8	A345	A3A1R238	A467
A3A1H41	A520	A3A1H9	A350	A3A1R239	A468
A3A1H42	A521	A3A1J202	A455	A3A1R241	A470
A3A1H43	A522	A3A1J203	A381	A3A1S202	A564
A3A1H44	A525	A3A1J204	A377	A3A1S203	A565
A3A1H45	A526	A3A1LS201	A463	1T202	A586
A3A1H46	A527	A3A1MP1	A335	A3A1V1	A390
A3A1H47	A530	A3A1MP10	A386	A3A1V2	A394
A3A1H48	A531	A3A1MP11	A448	A3A1V201	A388
A3A1H49	A532	A3A1MP12	A451	A3A1V202	A389
A3A1H5	A342	A3A1MP13	A454	A3A1V203	A391
A3A1H50	A545	A3A1MP14	A458	A3A1V204	A392
A3A1H51	A546	A3A1MP15	A459	A3A1V205	A393
A3A1H52	A547	A3A1MP16	A464	A3A1V206	A395
A3A1H53	A549	A3A1MP17	A465	A3A1V207	A396
A3A1H54	A550	A3A1MP18	A466	A3A1V3	A397
A3A1H55	A551	A3A1MP19	A496	A3A1W1	A346
A3A1H58	A567	A3A1MP2	A336	A3A1W201	A341
A3A1H59	A568	A3A1MP20	A498	A3A1XC214	A523

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SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A1XC216	A524
A3A1XDS201	A462
A3A1XF201	A444
A3A1XV201	A528
A3A1XV202	A529
A3A1XV203	A515
A3A1XV204	A516
A3A1XV205	A517
A3A1XV206	A518
A3A1XV207	A519
A3A10	A897
A3A11	A904
A3A11A1	A905
A3A11A2	A933
A3A11A2H1	A934
A3A11A2H10	A945
A3A11A2H2	A938
A3A11A2H3	A939
A3A11A2H4	A940
A3A11A2H5	A949
A3A11A2H6	A950
A3A11A2H7	A951
A3A11A2H8	A953
A3A11A2H9	A943
A3A11A2MP1	A935
A3A11A2MP10	A952
A3A11A2MP11	A954
A3A11A2MP2	A936
A3A11A2MP3	A937
A3A11A2MP4	A941
A3A11A2MP5	A942
A3A11A2MP6	A944
A3A11A2MP7	A946
A3A11A2MP8	A947
A3A11A2MP9	A948
A3A11A3	A955
A3A11A3A1	A977
A3A11A3A1A1	A980
A3A11A3A1A2	A982
A3A11A3A1A3	A984
A3A11A3A1A4	A985
A3A11A3A1H1	A981
A3A11A3A1H2	A987
A3A11A3A1H3	A988
A3A11A3A1H4	A990
A3A11A3A1H5	A991
A3A11A3A1H6	A992
A3A11A3A1H7	B006
A3A11A3A1MP1	A983
A3A11A3A1MP10	A999
A3A11A3A1MP11	B001
A3A11A3A1MP12	B002
A3A11A3A1MP13	B003
A3A11A3A1MP14	B004
A3A11A3A1MP2	A986
A3A11A3A1MP3	A989
A3A11A3A1MP4	A993
A3A11A3A1MP5	A994
A3A11A3A1MP6	A995
A3A11A3A1MP7	A996
A3A11A3A1MP8	A997
A3A11A3A1MP9	A998
A3A11A3A1S51	B005
A3A11A3A10	B088
A3A11A3A10A1TB52	B098
A3A11A3A10A1TB52C51	B099
A3A11A3A10A1TB52C52	B102
A3A11A3A10A1TB52C53	B100
A3A11A3A10A1TB52C54	B101
A3A11A3A10A1TB52R51	B104
A3A11A3A10A1TB52R52	B105
A3A11A3A10A1TB52R53	B106
A3A11A3A10A1TB52R54	B107
A3A11A3A10A1TB52R55	B108
A3A11A1A10A1TB52R56	B109
A3A11A3A10A1TB52R57	B110
A3A11A3A10A1TB52R58	B111
A3A11A3A10A1TB52R59	B112
A3A11A3A10A1TB52XV51	B113
A3A11A3A10A1W1	B103
A3A11A3A10H1	B097
A3A11A3A10MP1	B093
A3A11A3A10MP2	B094
A3A11A3A10MP3	B096
A3A11A3A10MP4	B114
A3A11A3A10MP5	B115
A3A11A3A10W1	B095
A3A11A3A11	B117
A3A11A3A11A1	B142
A3A11A3A11A2	B143
A3A11A3A11H1	B123
A3A11A3A11H10	B135
A3A11A3A11H11	B136
A3A11A3A11H12	B139
A3A11A3A11H13	B141
A3A11A3A11H14	B144
A3A11A3A11H15	B145
A3A11A3A11H16	B147
A3A11A3A11H2	B125
A3A11A3A11H3	B126
A3A11A3A11H4	B127
A3A11A3A11H5	B128
A3A11A3A11H6	B130
A3A11A3A11H7	B131
A3A11A3A11H8	B132
A3A11A3A11H9	B133
A3A11A3A11MP1	B120
A3A11A3A11MP10	B149
A3A11A3A11MP11	B150
A3A11A3A11MP12	B151
A3A11A3A11MP13	B152
A3A11A3A11MP14	B153
A3A11A3A11MP2	B121
A3A11A3A11MP3	B122
A3A11A3A11MP4	B134
A3A11A3A11MP5	B137
A3A11A3A11MP6	B138

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11A3A11MP7	B140	A3A11A3A8MP5	B064	A3A11A3H31	B077
A3A11A3A11MP8	B146	A3A11A3A8MP6	B071	A3A11A3H32	B086
A3A11A3A11MP9	B148	A3A11A3A8MP7	B072	A3A11A3H33	B089
A3A11A3A11FU51	B129	A3A11A3A9	B073	A3A11A3H34	B090
A3A11A3A11FU52	B124	A3A11A3A9E1	B084	A3A11A3H35	B091
A3A11A3A12	B154	A3A11A3A9MP1	B078	A3A11A3H36	B092
A3A11A3A12T51	B160	A3A11A3A9MP2	B079	A3A11A3H37	B118
A3A11A3A12V1	B157	A3A11A3A9MP3	B080	A3A11A3H38	B119
A3A11A3A12V2	B158	A3A11A3A9MP4	B081	A3A11A3H39	B155
A3A11A3A12V3	B159	A3A11A3A9MP5	B082	A3A11A3H4	A963
A3A11A3A2	B015	A3A11A3A9MP6	B083	A3A11A3H40	B156
A3A11A3A2E101	B018	A3A11A3DS51	B021	A3A11A3H5	A964
A3A11A3A2E1	B017	A3A11A3DS52	B022	A3A11A3H6	A978
A3A11A3A2MP1	B016	A3A11A3E1	B020	A3A11A3H7	A979
A3A11A3A4	B028	A3A11A3E51	B087	A3A11A3H8	B008
A3A11A3A5V52	B034	A3A11A3H1	A959	A3A11A3H9	B009
A3A11A3A6	B037	A3A11A3H10	B010	A3A11A3MP1	A961
A3A11A3A7	B043	A3A11A3H11	B013	A3A11A3MP10	B085
A3A11A3A7E1	B053	A3A11A3H12	B014	A3A11A3MP11	B116
A3A11A3A7MP1	B048	A3A11A3H13	B024	A3A11A3MP2	A976
A3A11A3A7MP2	B049	A3A11A3H14	B027	A3A11A3MP3	B007
A3A11A3A7MP3	B050	A3A11A3H15	B029	A3A11A3MP4	B012
A3A11A3A7MP4	B051	A3A11A3H16	B030	A3A11A3MP5	B026
A3A11A3A7MP5	B052	A3A11A3H17	B031	A3A11A3MP6	B032
A3A11A3A7MP6	B054	A3A11A3H18	B035	A3A11A3MP7	B033
A3A11A3A8	B055	A3A11A3H19	B036	A3A11A3MP8	B040
A3A11A3A8A1	B066	A3A11A3H2	A960	A3A11A3MP9	B042
A3A11A3A8A1MP1	B067	A3A11A3H20	B038	A3A11A3P59	B011
A3A11A3A8A1MP2	B068	A3A11A3H21	B039	A3A11A3TB51	A958
A3A11A3A8A1MP3	B069	A3A11A3H22	B041	A3A11A3V51	B019
A3A11A3A8A1MP4	B070	A3A11A3H23	B044	A3A11A3W1	A965
A3A11A3A8E1	B060	A3A11A3H24	B045	A3A11A3W1E1	A967
A3A11A3A8E2	B061	A3A11A3H25	B046	A3A11A3W1W1	A966
A3A11A3A8E3	B063	A3A11A3H26	B047	A3A11A3W51	B161
A3A11A3A8E4	B065	A3A11A3H27	B056	A3A11A3W51A1	B162
A3A11A3A8MP1	B057	A3A11A3H28	B074	A3A11A3W51A2	B164
A3A11A3A8MP2	B058	A3A11A3H29	B075	A3A11A3W51A2W1	B165
A3A11A3A8MP3	B059	A3A11A3H3	A962	A3A11A3W51E1	B163
A3A11A3A8MP4	B062	A3A11A3H30	B076	A3A11A3W51P55	B166

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SECTION V INDEX-REFERENCE DESIGNATION
CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11A3W51V1	B167
A3A11A3W51V2	B168
A3A11A3W51V3	B169
A3A11A3W51V4	B170
A3A11A3W52	A968
A3A11A3W52E1	A971
A3A11A3W52E2	A972
A3A11A3W52E3	A973
A3A11A3W52W1	A969
A3A11A3W52W2	A970
A3A11A3W52W3	A974
A3A11A3W52W4	A975
A3A11A3XDS51	B025
A3A11A3XDS52	B023
A3A11A5	B279
A3A11A5A1	B284
A3A11A5A10	B395
A3A11A5A10MP1	B398
A3A11A5A11	B399
A3A11A5A12	B401
A3A11A5A13	B405
A3A11A5A14	B407
A3A11A5A14E1	B409
A3A11A5A14MP1	B408
A3A11A5A14MP2	B410
A3A11A5A15	B411
A3A11A5A15E1	B413
A3A11A5A15MP1	B412
A3A11A5A15MP2	B414
A3A11A5A16	B415
A3A11A5A16E1	B417
A3A11A5A16MP1	B416
A3A11A5A16MP2	B418
A3A11A5A17	B419
A3A11A5A17A1	B423
A3A11A5A17E1	B421
A3A11A5A17MP1	B420
A3A11A5A17MP2	B422
A3A11A5A18	B424
A3A11A5A18E1	B430
A3A11A5A18MP1	B428
A3A11A5A18MP2	B429
A3A11A5A19	B431
A3A11A5A19A1	B433
A3A11A5A19A2	B434
A3A11A5A19A2MP1	B436
A3A11A5A19A3	B437
A3A11A5A19A3MP1	B439
A3A11A5A19E1	B435
A3A11A5A19E2	B438
A3A11A5A2	B286
A3A11A5A2E1	B290
A3A11A5A2MP1	B288
A3A11A5A2MP2	B289
A3A11A5A20	B442
A3A11A5A20E1	B446
A3A11A5A20E2	B449
A3A11A5A20E3	B447
A3A11A5A20MP1	B443
A3A11A5A20MP2	B444
A3A11A5A20MP3	B445
A3A11A5A20MP4	B448
A3A11A5A20MP5	B450
A3A11A5A21	B453
A3A11A5A21A1	B455
A3A11A5A21MP1	B454
A3A11A5A21MP2	B456
A3A11A5A22	B460
A3A11A5A22A1	B466
A3A11A5A22E1	B464
A3A11A5A22E2	B470
A3A11A5A22E3	B474
A3A11A5A22E4	B475
A3A11A5A22E5	B477
A3A11A5A22E6	B478
A3A11A5A22E7	B480
A3A11A5A22E8	B469
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A3A11A5A22MP13	B484
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A3A11A5A22MP3	B467
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A3A11A5A22MP6	B472
A3A11A5A22MP7	B473
A3A11A5A22MP8	B476
A3A11A5A22MP9	B479
A3A11A5A23	B487
A3A11A5A24	B494
A3A11A5A24E1	B497
A3A11A5A24MP1	B496
A3A11A5A25	B498
A3A11A5A25A1	B499
A3A11A5A25A2	B500
A3A11A5A25A3	B503
A3A11A5A25E1	B501
A3A11A5A25E2	B502
A3A11A5A25E3	B504
A3A11A5A25MP1	B505
A3A11A5A26	B506
A3A11A5A26E1	B513
A3A11A5A26MP1	B509
A3A11A5A26MP2	B510
A3A11A5A26MP3	B511
A3A11A5A26MP4	B512
A3A11A5A26MP5	B507
A3A11A5A26MP6	B508
A3A11A5A27	B517
A3A11A5A27MP1	B518
A3A11A5A27MP10	B527
A3A11A5A27MP11	B528
A3A11A5A27MP12	B529
A3A11A5A27MP13	B530

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SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11A5A27MP14	B531	A3A11A5A3	B297	A3A11A5A37MP2	B615
A3A11A5A27MP15	B532	A3A11A5A30	B565	A3A11A5A37MP3	B618
A3A11A5A27MP16	B533	A3A11A5A30MP1	B567	A3A11A5A37MP4	B619
A3A11A5A27MP17	B534	A3A11A5A31	B568	A3A11A5A37MP5	B620
A3A11A5A27MP18	B535	A3A11A5A32	B572	A3A11A5A37MP6	B622
A3A11A5A27MP19	B536	A3A11A5A32R1	B577	A3A11A5A37MP7	B623
A3A11A5A27MP2	B519	A3A11A5A32MP1	B575	A3A11A5A38	B651
A3A11A5A27MP20	B537	A3A11A5A32MP2	B576	A3A11A5A38MP1	B652
A3A11A5A27MP21	B538	A3A11A5A32MP3	B578	A3A11A5A4	B301
A3A11A5A27MP22	B539	A3A11A5A32MP4	B579	A3A11A5A4MP1	B304
A3A11A5A27MP23	B540	A3A11A5A33	B580	A3A11A5A5	B321
A3A11A5A27MP24	B541	A3A11A5A33R1	B585	A3A11A5A5R1	B326
A3A11A5A27MP3	B520	A3A11A5A33MP1	B583	A3A11A5A5R2	B327
A3A11A5A27MP4	B521	A3A11A5A33MP2	B584	A3A11A5A5R3	B328
A3A11A5A27MP5	B522	A3A11A5A33MP3	B586	A3A11A5A5R4	B330
A3A11A5A27MP6	B523	A3A11A5A33MP4	B587	A3A11A5A5R5	B333
A3A11A5A27MP7	B524	A3A11A5A34	B588	A3A11A5A5R6	B335
A3A11A5A27MP8	B525	A3A11A5A34R1	B593	A3A11A5A5R7	B336
A3A11A5A27MP9	B526	A3A11A5A34MP1	B591	A3A11A5A5R8	B337
A3A11A5A28	B542	A3A11A5A34MP2	B592	A3A11A5A5MP1	B324
A3A11A5A28A1	B548	A3A11A5A34MP3	B594	A3A11A5A5MP2	B325
A3A11A5A28R1	B549	A3A11A5A34MP4	B595	A3A11A5A5MP3	B329
A3A11A5A28R2	B550	A3A11A5A35	B596	A3A11A5A5MP4	B331
A3A11A5A28MP1	B543	A3A11A5A35A1	B598	A3A11A5A5MP5	B332
A3A11A5A28MP2	B544	A3A11A5A35MP1	B597	A3A11A5A5MP6	B334
A3A11A5A28MP3	B545	A3A11A5A35MP2	B599	A3A11A5A6	B338
A3A11A5A28MP4	B546	A3A11A5A36	B600	A3A11A5A6MP1	B342
A3A11A5A28MP5	B547	A3A11A5A36A1	B607	A3A11A5A6MP2	B343
A3A11A5A28MP6	B551	A3A11A5A36MP1	B604	A3A11A5A7	B350
A3A11A5A29	B552	A3A11A5A36MP2	B605	A3A11A5A7A1	B353
A3A11A5A29A1	B558	A3A11A5A36MP3	B606	A3A11A5A7A2	B354
A3A11A5A29R1	B559	A3A11A5A36MP4	B608	A3A11A5A7A3	B359
A3A11A5A29R2	B560	A3A11A5A36MP5	B609	A3A11A5A7A4	B363
A3A11A5A29MP1	B553	A3A11A5A36MP6	B610	A3A11A5A7A4MP1	B364
A3A11A5A29MP2	B554	A3A11A5A37	B611	A3A11A5A7A4MP2	B365
A3A11A5A29MP3	B555	A3A11A5A37K1	B616	A3A11A5A7A4MP3	B366
A3A11A5A29MP4	B556	A3A11A5A37K2	B617	A3A11A5A7A4MP4	B367
A3A11A5A29MP5	B557	A3A11A5A37K3	B621	A3A11A5A7A4MP5	B368
A3A11A5A29MP6	B561	A3A11A5A37MP1	B614	A3A11A5A7A4MP6	B369

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SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11A5A7A5	B370
A3A11A5A7A5MP1	B373
A3A11A5A7A5MP2	B374
A3A11A5A7A5MP3	B375
A3A11A5A7A5MP4	B376
A3A11A5A7A5MP5	B377
A3A11A5A7A5MP6	B378
A3A11A5A7A6	B379
A3A11A5A7H1	B355
A3A11A5A7H2	B357
A3A11A5A7H3	B358
A3A11A5A7H4	B362
A3A11A5A7H5	B371
A3A11A5A7H6	B380
A3A11A5A7H7	B360
A3A11A5A7H8	B382
A3A11A5A7H9	B372
A3A11A5A7MP1	B356
A3A11A5A7MP2	B361
A3A11A5A7MP3	B381
A3A11A5A7MP4	B383
A3A11A5A7MP5	B384
A3A11A5A7MP6	B385
A3A11A5A7MP7	B386
A3A11A5A7MP8	B387
A3A11A5A7MP9	B388
A3A11A5A8	B389
A3A11A5A9	B392
A3A11A5H1	B283
A3A11A5H10	B302
A3A11A5H11	B303
A3A11A5H14	B306
A3A11A5H15	B307
A3A11A5H16	B309
A3A11A5H17	B310
A3A11A5H18	B314
A3A11A5H19	B316
A3A11A5H2	B285
A3A11A5H20	B318
A3A11A5H21	B322
A3A11A5H22	B323
A3A11A5H23	B339
A3A11A5H24	B340
A3A11A5H25	B341
A3A11A5H26	B345
A3A11A5H27	B346
A3A11A5H28	B347
A3A11A5H29	B351
A3A11A5H30	B352
A3A11A5H31	B390
A3A11A5H32	B391
A3A11A5H3	B287
A3A11A5H33	B393
A3A11A5H34	B394
A3A11A5H35	B396
A3A11A5H36	B397
A3A11A5H37	B400
A3A11A5H38	B402
A3A11A5H39	B403
A3A11A5H4	B293
A3A11A5H40	B404
A3A11A5H41	B406
A3A11A5H42	B653
A3A11A5H43	B514
A3A11A5H44	B515
A3A11A5H45	B516
A3A11A5H46	B425
A3A11A5H47	B426
A3A11A5H48	B427
A3A11A5H49	B432
A3A11A5H5	B295
A3A11A5H50	B441
A3A11A5H51	B459
A3A11A5H52	B461
A3A11A5H53	B462
A3A11A5H54	B491
A3A11A5H55	B492
A3A11A5H56	B495
A3A11A5H57	B566
A3A11A5H58	B569
A3A11A5H59	B573
A3A11A5H6	B296
A3A11A5H60	B574
A3A11A5H61	B581
A3A11A5H62	B582
A3A11A5H63	B589
A3A11A5H64	B590
A3A11A5H65	B601
A3A11A5H66	B602
A3A11A5H67	B603
A3A11A5H68	B612
A3A11A5H69	B613
A3A11A5H7	B298
A3A11A5H70	B634
A3A11A5H71	B636
A3A11A5H72	B638
A3A11A5H73	B642
A3A11A5H74	B319
A3A11A5H75	B452
A3A11A5H8	B299
A3A11A5H9	B300
A3A11A5MP1	B282
A3A11A5MP10	B315
A3A11A5MP11	B317
A3A11A5MP12	B320
A3A11A5MP13	B344
A3A11A5MP14	B348
A3A11A5MP15	B349
A3A11A5MP16	B440
A3A11A5MP17	B451
A3A11A5MP18	B457
A3A11A5MP19	B458
A3A11A5MP2	B291
A3A11A5MP20	B486
A3A11A5MP21	B488
A3A11A5MP22	B489
A3A11A5MP23	B490

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11A5MP24	B493
A3A11A5MP25	B562
A3A11A5MP26	B563
A3A11A5MP27	B564
A3A11A5MP28	B570
A3A11A5MP29	B571
A3A11A5MP3	B292
A3A11A5MP30	B624
A3A11A5MP31	B625
A3A11A5MP32	B626
A3A11A5MP33	B627
A3A11A5MP34	B628
A3A11A5MP35	B629
A3A11A5MP36	B630
A3A11A5MP37	B631
A3A11A5MP38	B632
A3A11A5MP39	B633
A3A11A5MP4	B294
A3A11A5MP40	B635
A3A11A5MP41	B637
A3A11A5MP42	B639
A3A11A5MP43	B640
A3A11A5MP44	B641
A3A11A5MP45	B643
A3A11A5MP46	B644
A3A11A5MP47	B645
A3A11A5MP48	B646
A3A11A5MP49	B647
A3A11A5MP5	B305
A3A11A5MP50	B648
A3A11A5MP51	B649
A3A11A5MP52	B650
A3A11A5MP53	B654
A3A11A5MP54	B655
A3A11A5MP55	B656
A3A11A5MP56	B657
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A3A11A5MP58	B659
A3A11A5MP59	B660
A3A11A5MP6	B308
A3A11A5MP60	B661
A3A11A5MP61	B662
A3A11A5MP62	B663
A3A11A5MP63	B664
A3A11A5MP64	B665
A3A11A5MP65	B666
A3A11A5MP66	B667
A3A11A5MP67	B668
A3A11A5MP68	B669
A3A11A5MP69	B670
A3A11A5MP7	B311
A3A11A5MP70	B671
A3A11A5MP71	B672
A3A11A5MP8	B312
A3A11A5MP9	B313
A3A11A6	B673
A3A11A6A1	B695
A3A11A6A1MP1	B697
A3A11A6A2	B698
A3A11A6A2MP1	B700
A3A11A6H1	B677
A3A11A6H10	B696
A3A11A6H12	B699
A3A11A6H2	B678
A3A11A6H3	B679
A3A11A6H4	B680
A3A11A6H5	B683
A3A11A6H6	B685
A3A11A6H7	B688
A3A11A6H8	B690
A3A11A6H9	B691
A3A11A6MP1	B674
A3A11A6MP10	B703
A3A11A6MP2	B675
A3A11A6MP3	B682
A3A11A6MP4	B684
A3A11A6MP5	B686
A3A11A6MP6	B687
A3A11A6MP7	B689
A3A11A6MP7MP1	B694
A3A11A6MP7MP2	B693
A3A11A6MP7MP3	B692
A3A11A6MP8	B702
A3A11A6MP9	B701
A3A11A6W1	B676
A3A11A6W1E1	B681
A3A11B101	B187
A3A11B101A1	B191
A3A11B101A1H1	B196
A3A11B101A1L1	B192
A3A11B101A1MP1	B193
A3A11B101A1MP2	B194
A3A11B101A1MP3	B195
A3A11B101A2	B197
A3A11B101A2A1	B206
A3A11B101A2A1H1	B212
A3A11B101A2A1MP1	B210
A3A11B101A2A1MP2	B211
A3A11B101A2H1	B207
A3A11B101A2H2	B208
A3A11B101A2H3	B209
A3A11B101A2MP1	B202
A3A11B101A2MP2	B203
A3A11B101A2MP3	B204
A3A11B101A2MP4	B205
A3A11B101A2MP5	B201
A3A11B101A3	B233
A3A11B101A3A1	B238
A3A11B101A3A2	B239
A3A11B101A3A2MP1	B242
A3A11B101A3A3	B243
A3A11B101A3A3H1	B245
A3A11B101A3A3MP1	B244
A3A11B101A3A3MP2	B246
A3A11B101A3A4	B247
A3A11B101A3A4MP1	B248
A3A11B101A3H1	B240

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A11B101A3E2	B241
A3A11B101A3MP1	B249
A3A11B101A3MP2	B250
A3A11B101A3MP3	B251
A3A11B101A3MP4	B252
A3A11B101C107	B228
A3A11B101C108	B229
A3A11B101C109	B224
A3A11B101C112	B223
A3A11B101E1	B213
A3A11B101E10	B257
A3A11B101E2	B214
A3A11B101E3	B215
A3A11B101E4	B216
A3A11B101E5	B221
A3A11B101E6	B222
A3A11B101E7	B254
A3A11B101E8	B255
A3A11B101E9	B256
A3A11B101R1	B225
A3A11B101R10	B219
A3A11B101R11	B230
A3A11B101R12	B231
A3A11B101R13	B259
A3A11B101R14	B260
A3A11B101R15	B262
A3A11B101R16	B263
A3A11B101R17	B274
A3A11B101R18	B275
A3A11B101R19	B226
A3A11B101R2	B198
A3A11B101R20	B227
A3A11B101R21	B271
A3A11B101R22	B272
A3A11B101R3	B199
A3A11B101R4	B200
A3A11B101R5	B234
A3A11B101R6	B235
A3A11B101R7	B236
A3A11B101R8	B237
A3A11B101R9	B218
A3A11B101L101	B273
A3A11B101MP1	B258
A3A11B101MP2	B261
A3A11B101MP3	B276
A3A11B101MP4	B277
A3A11B101MP5	B278
A3A11B101P106	B232
A3A11B101R105	B270
A3A11B101R106	B253
A3A11B101W1	B264
A3A11B101W2	B265
A3A11B101W3	B266
A3A11B101W4	B267
A3A11B101W5	B268
A3A11B101W6	B269
A3A11B101W8	B217
A3A11B101W8E1	B220
A3A11B102	A906
A3A11B102C104	A917
A3A11B102C105	A918
A3A11B102E1	A913
A3A11B102E2	A914
A3A11B102E3	A915
A3A11B102E4	A916
A3A11B102E5	A920
A3A11B102E6	A921
A3A11B102E7	A926
A3A11B102E8	A927
A3A11B102R1	A922
A3A11B102R2	A924
A3A11B102R3	A925
A3A11B102R4	A929
A3A11B102R5	A930
A3A11B102L1	A909
A3A11B102L102	A908
A3A11B102MP1	A910
A3A11B102MP2	A911
A3A11B102MP3	A912
A3A11B102MP4	A923
A3A11B102MP5	A931
A3A11B102MP6	A932
A3A11B102MP7	A919
A3A11K1	A907
A3A11K10	B179
A3A11K11	B180
A3A11K12	B182
A3A11K13	B183
A3A11K14	B185
A3A11K15	B186
A3A11K16	B188
A3A11K17	B189
A3A11K18	B190
A3A11K19	B280
A3A11K2	A908
A3A11K20	B281
A3A11K3	A956
A3A11K4	A957
A3A11K5	B172
A3A11K6	B174
A3A11K7	B175
A3A11K8	B176
A3A11K9	B177
A3A11MP1	B171
A3A11W1	B178
A3A11W2	B181
A3A11W3	B184
A3A11XDS102	B173
A3A12	B704
A3A12A1	B716
A3A12A1A1	B717
A3A12A1FL101	B721
A3A12A1K1	B718
A3A12A1K2	B719
A3A12A1K3	B720
A3A12A1W1	B722
A3A12A1W2	B723

SECTION V INDEX-REFERENCE DESIGNATION
CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A12A10	B750	A3A12H11	B762	A3A13H1	B797
A3A12A10W1	B751	A3A12H12	B763	A3A13H2	B798
A3A12A11	B752	A3A12H13	B764	A3A13H3	B801
A3A12A11W1	B753	A3A12H14	B771	A3A13H4	B802
A3A12A12	B776	A3A12H15	B774	A3A13H5	B803
A3A12A12A1	B778	A3A12H16	B775	A3A13J109	B795
A3A12A12A1W1	B779	A3A12H17	B777	A3A13K101	B800
A3A12A12A2	B780	A3A12H18	B729	A3A13MP1	B796
A3A12A12A2W1	B781	A3A12H19	B768	A3A13W1	B799
A3A12A12A3	B782	A3A12H2	B709	A3A2	A599
A3A12A12A3W1	B783	A3A12H20	B769	A3A2A1	A604
A3A12A12A4	B784	A3A12H21	B767	A3A2A2	A605
A3A12A12A4W1	B785	A3A12H3	B710	A3A2A2MP1	A606
A3A12A12A5	B786	A3A12H4	B711	A3A2A2MP2	A607
A3A12A12A5W1	B787	A3A12H5	B712	A3A2A2MP3	A608
A3A12A12A6	B788	A3A12H6	B713	A3A2A3	A616
A3A12A12A6W1	B789	A3A12H7	B756	A3A2A3H1	A618
A3A12A12MP1	B790	A3A12H8	B757	A3A2A3MP1	A617
A3A12A2	B733	A3A12H9	B758	A3A2A3MP2	A619
A3A12A2W1	B734	A3A12J104	B765	A3A2A3MP3	A620
A3A12A3	B735	A3A12MP1	B707	A3A2A3MP4	A621
A3A12A3W1	B736	A3A12MP2	B724	A3A2A3MP5	A622
A3A12A4	B737	A3A12MP3	B727	A3A2A3MP6	A623
A3A12A4W1	B738	A3A12MP4	B728	A3A2H1	A611
A3A12A5	B739	A3A12MP5	B754	A3A2MP1	A600
A3A12A5W1	B740	A3A12MP6	B755	A3A2MP10	A615
A3A12A6	B741	A3A12MP7	B759	A3A2MP11	A624
A3A12A6W1	B742	A3A12MP8	B760	A3A2MP12	A625
A3A12A7	B743	A3A12MP9	B766	A3A2MP13	A626
A3A12A7W1	B744	A3A12S102	B772	A3A2MP14	A627
A3A12A8	B745	A3A12S103	B770	A3A2MP2	A601
A3A12A8W1	B746	A3A12S105	B773	A3A2MP3	A602
A3A12A9	B747	A3A12W1	B749	A3A2MP4	A603
A3A12A9W1	B748	A3A12W102	B714	A3A2MP5	A609
A3A12DS101	B730	A3A12W102W1	B715	A3A2MP6	A610
A3A12E1	B725	A3A12XDS101	B731	A3A2MP7	A612
A3A12E2	B726	A3A12XDS102	B732	A3A2MP8	A613
A3A12H1	B708	A3A13	B791	A3A2MP9	A614
A3A12H10	B761	A3A13A1	B794	A3A3	A628

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SECTION V INDEX-REFERENCE DESIGNATION
CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A3A1	A641	A3A5MP4	A672	A3A6A5A1MP1	A754
A3A3A1K1	A643	A3A5MP5	A673	A3A6A5A1MP2	A755
A3A3A1MP1	A642	A3A6	A689	A3A6A5A1MP3	A756
A3A3A1MP2	A644	A3A6A1	A697	A3A6A5A2	A757
A3A3A1MP3	A645	A3A6A2	A702	A3A6A5A2MP1	A758
A3A3A1MP4	A646	A3A6A2A1	A711	A3A6A5A2MP2	A759
A3A3A1MP5	A647	A3A6A2K1	A714	A3A6A5A2MP3	A760
A3A3A1MP6	A648	A3A6A2MP1	A703	A3A6A5K1	A762
A3A3K1	A635	A3A6A2MP10	A713	A3A6A6	A767
A3A3MP1	A629	A3A6A2MP2	A704	A3A6A6MP1	A768
A3A3MP10	A640	A3A6A2MP3	A705	A3A6A6MP2	A769
A3A3MP11	A649	A3A6A2MP4	A706	A3A6A7	A774
A3A3MP12	A650	A3A6A2MP5	A707	A3A6A7A1	A781
A3A3MP13	A651	A3A6A2MP6	A708	A3A6A7A1MP1	A784
A3A3MP15	A639	A3A6A2MP7	A709	A3A6A7A1MP2	A785
A3A3MP2	A630	A3A6A2MP8	A710	A3A6A7A1MP3	A786
A3A3MP3	A631	A3A6A2MP9	A712	A3A6A7A2	A787
A3A3MP4	A632	A3A6A3	A725	A3A6A7A2MP1	A790
A3A3MP5	A633	A3A6A3A1	A729	A3A6A7A2MP2	A791
A3A3MP6	A634	A3A6A3MP1	A728	A3A6A7A2MP3	A792
A3A3MP7	A636	A3A6A3MP2	A730	A3A6A7K1	A782
A3A3MP8	A637	A3A6A4	A733	A3A6A7K2	A783
A3A3MP9	A638	A3A6A4A1	A736	A3A6A7K3	A788
A3A4	A654	A3A6A4A1MP1	A737	A3A6A7K4	A789
A3A5	A663	A3A6A4A1MP2	A738	A3A6A7MP1	A778
A3A5A1	A674	A3A6A4A1MP3	A739	A3A6A7MP2	A779
A3A5A1K1	A676	A3A6A4A2	A740	A3A6A7MP3	A780
A3A5A1K2	A677	A3A6A4A2MP1	A743	A3A6A8	A793
A3A5A1K3	A678	A3A6A4A2MP2	A744	A3A6A8A1	A800
A3A5A1MP1	A675	A3A6A4A2MP3	A745	A3A6A8A1MP1	A803
A3A5A1MP2	A679	A3A6A4A2MP4	A746	A3A6A8A1MP2	A804
A3A5A2	A680	A3A6A4A3	A747	A3A6A8A1MP3	A805
A3A5A3	A681	A3A6A4K1	A749	A3A6A8A2	A806
A3A5K1	A667	A3A6A4K2	A741	A3A6A8A2MP1	A809
A3A5K2	A668	A3A6A4K3	A742	A3A6A8A2MP2	A810
A3A5K3	A669	A3A6A4MP1	A748	A3A6A8A2MP3	A811
A3A5MP1	A666	A3A6A5	A750	A3A6A8K1	A801
A3A5MP2	A670	A3A6A5A1	A753	A3A6A8K2	A802
A3A5MP3	A671	A3A6A5A1A1	A761	A3A6A8K3	A807

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SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER	REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3A6A8H4	A808	A3A6MP2	A699	A3A8MP3	A849
A3A6A8MP1	A797	A3A6MP20	A820	A3A8MP4	A850
A3A6A8MP2	A798	A3A6MP22	A717	A3A8MP5	A851
A3A6A8MP3	A799	A3A6MP3	A715	A3A8MP6	A858
A3A6H1	A700	A3A6MP4	A716	A3A8MP7	A859
A3A6H10	A732	A3A6MP5	A718	A3A8MP8	A861
A3A6H11	A734	A3A6MP6	A719	A3A8MP9	A863
A3A6H12	A735	A3A6MP7	A731	A3A9	A898
A3A6H13	A773	A3A6MP8	A763	A3A9W1	A896
A3A6H14	A775	A3A6MP9	A764	A3DS1	A886
A3A6H15	A776	A3A7	A822	A3DS103	A887
A3A6H16	A777	A3A7E1	A827	A3DS2	A888
A3A6H17	A817	A3A7E2	A828	A3DS3	A889
A3A6H18	A819	A3A7E3	A829	A3E1	A878
A3A6H2	A701	A3A7J103	A826	A3E2	A879
A3A6H20	A751	A3A7W1	A830	A3E3	A880
A3A6H21	A752	A3A7W2	A831	A3E4	A881
A3A6H22	A771	A3A7W4	A832	A3E5	A882
A3A6H23	A794	A3A7W4W1	A833	A3E6	A883
A3A6H24	A795	A3A8	A843	A3F1	A872
A3A6H25	A796	A3A8A1	A853	A3F101	A873
A3A6H3	A720	A3A8A1H1	A857	A3F102	A874
A3A6H4	A721	A3A8A1H2	A855	A3F2	A875
A3A6H5	A722	A3A8A1MP1	A854	A3H1	A333
A3A6H6	A723	A3A8A1MP2	A856	A3H10	A680
A3A6H7	A724	A3A8A2	A862	A3H11	A691
A3A6H8	A726	A3A8H1	A845	A3H12	A692
A3A6H9	A727	A3A8H10	A869	A3H13	A693
A3A6MP1	A698	A3A8H2	A847	A3H14	A694
A3A6MP10	A765	A3A8H3	A848	A3H15	A823
A3A6MP11	A766	A3A8H4	A852	A3H16	A824
A3A6MP12	A770	A3A8H5	A860	A3H17	A825
A3A6MP13	A772	A3A8H6	A864	A3H18	A835
A3A6MP14	A812	A3A8H7	A865	A3H19	A836
A3A6MP15	A813	A3A8H8	A866	A3H2	A334
A3A6MP16	A814	A3A8H9	A868	A3H20	A837
A3A6MP17	A815	A3A8MP1	A844	A3H21	A839
A3A6MP18	A816	A3A8MP10	A867	A3H22	A840
A3A6MP19	A818	A3A8MP2	A846	A3H23	A841

64.113

SECTION V INDEX-REFERENCE DESIGNATION CROSS-REFERENCE TO ITEM SEQUENCE NUMBER (CONTINUED)

REFERENCE DESIGNATION	ITEM SEQUENCE NUMBER
A3H24	A871
A3H25	A891
A3H26	A893
A3H27	A894
A3H28	A895
A3H29	A900
A3H3	A656
A3H30	A902
A3H31	A903
A3H32	B792
A3H33	B793
A3H34	B805
A3H35	B806
A3H36	A885
A3H37	B705
A3H38	B706
A3H4	A657
A3H40	A695
A3H41	A696
A3H5	A658
A3H6	A661
A3H7	A662
A3H8	A664
A3H9	A665
A3J105	A834
A3MP1	A652
A3MP10	A838
A3MP11	A842
A3MP12	A870
A3MP13	A884
A3MP14	A898
A3MP15	A899
A3MP16	A901
A3MP17	B804
A3MP18	B807
A3MP19	B808
A3MP2	A653
A3MP20	B809
A3MP21	B810
A3MP22	B811
A3MP3	A655
A3MP4	A659
A3MP5	A660
A3MP6	A682
A3MP7	A683
A3MP8	A688
A3MP9	A821
A3W501	A684
A3W501P501	A687
A3W501P503	A686
A3W501W1	A685
A3XF101	A876
A3XF102	A877
A3XDS103	A890
MP1	B812

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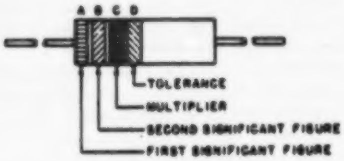
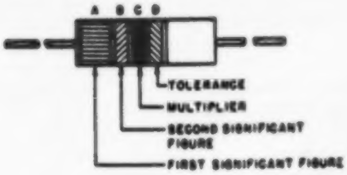
COLOR CODE MARKING FOR MILITARY STANDARD RESISTORS

COMPOSITION-TYPE RESISTORS



BAND A— Equal Width Band Signifies Composition-Type

WIREWOUND-TYPE RESISTORS

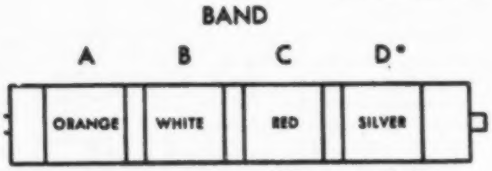


BAND A— Double Width Signifies Wire-wound Resistor

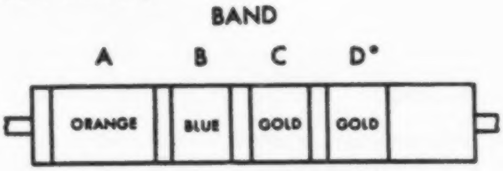
COLOR CODE TABLE

BAND A		BAND B		BAND C		BAND D*	
COLOR	FIRST SIGNIFICANT FIGURE	COLOR	SECOND SIGNIFICANT FIGURE	COLOR	MULTIPLIER	COLOR	RESISTANCE TOLERANCE (PERCENT)
BLACK	0	BLACK	0	BLACK	1		
BROWN	1	BROWN	1	BROWN	10		
RED	2	RED	2	RED	100		
ORANGE	3	ORANGE	3	ORANGE	1,000		
YELLOW	4	YELLOW	4	YELLOW	10,000	SILVER	± 10
GREEN	5	GREEN	5	GREEN	100,000	GOLD	± 5
BLUE	6	BLUE	6	BLUE	1,000,000		
PURPLE (VIOLET)	7	PURPLE (VIOLET)	7				
GRAY	8	GRAY	8	SILVER	0.01		
WHITE	9	WHITE	9	GOLD	0.1		

EXAMPLES OF COLOR CODING



3 9 X100 ± 10%



3 6 X0.1 ± 5%

NOMINAL RESISTANCE	3,900 Ohms	3.6 Ohms
RESISTANCE TOLERANCE	± 10 percent	± 5 percent

STD-R2

*If Band D is omitted, the resistor tolerance is ±20%, and the resistor is not Mil-Std.

Figure 91. Color-code marking for MIL-STD resistors.

Charts Transposed to
End of Volume.

By Order of Secretary of the Army:

EARLE G. WHEELER,
General, United States Army,
Chief of Staff.

Official:
J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

DASA (6)
USASA (2)
CNGB (1)
CSigO (7)
CofT (1)
CofEngrs (1)
CofSptS (1)
TSG (1)
USA CD Agcy (2)
USAMC (5)
USCONARC (5)
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ARADCOM Rgn (2)
OS Maj Comd (3)
Base Comd (2)
LOGCOMD (2)
USAECOM (7)
USAMICOM (4)
USASCC (4)
MDW (1)
Armies (2)
Corps (2)
USATC AD (2)
USATC Armor (2)
USATC Engr (2)
USATC Inf (2)
USASTC (2)
Instl (2) except
  Ft Monmouth (63)
  Ft Hancock (4)
GENDEP (OS) (2)
Sig Sec, GENDEP (5)
Sig Dep (OS) (12)
A Dep (2) except
  Lexington (12)
  Sacramento (28)
  Tobyhanna (12)
  Ft Worth (8)

Svc Colleges (2)
Br Svc Sch (2) except
USMA (2)
WRAMC (2)
USA Trans Tml Comd (1)
Army Tml (1)
USAOSA (1)
POE (1)
AMS (1)
Army Pic Cen (2)
USA Mbl Spt Cen (1)
USA Elct Mat Agcy (12)
Chicago Proc Dist (1)
Sig Fld Maint Shops (3)
USA Elct RD Actv
  Ft Huachuca (2)
  White Sands (13)
WSMR (5)
Yuma PG (2)
USA Corps (3)
USASMCOM (1)
USAREUR Spt Comd (5)
Ft Gordon (3)
Ft Huachuca (8)
Units org under fol TOE:
  (2 copies each UNOINDC)
  11-7
  11-16
  11-57
  11-96
  11-117
  11-155
  11-157
  11-500 (AA-AE) (4)
  11-557
  11-587
  11-592
  11-597

NG: State AG (3); Units same as Active Army except allowance is one (1) copy to each unit.
USAR: None.
For explanation of abbreviations used, see AR 320-50.

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150. Physical Tests and Inspection

a. *Test Equipment and Materials.* Light assembly, Electric MX-1292/PAQ.

b. *Test Connections and Conditions.*

(1) Do not connect the AS-7A to a power source.

(2) Install the wide-transmission filter on the MX-1292/PAQ.

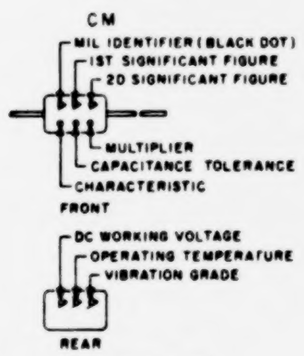
Note: The moisture-fungiproofing (MFP) check should be made upon completion of repairs, but before reinstallation of the equipment in its case.

c. *Procedure.*

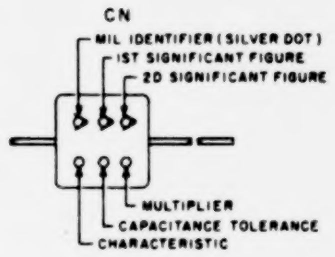
Step No.	Test equipment control settings	Equipment under test control settings	Test procedure	Performance standard
1	N/A	None.	*Projector:* a. Inspect projector for missing screws, nuts, and other small parts.	a. All screws and nuts are tight. No parts are missing.
			b. Inspect condition of rubber feet on projector legs and tilt leg.	b. Rubber feet are not cut, torn, or badly damaged.
			c. Inspect projector for evidence of physical damage, condition of finish, panel lettering, and decals. *Note:* Touchup painting is recommended whenever practicable instead of refinishing. Screwheads, binding posts, receptacles, and plated fastener parts will not be painted or polished with abrasives.	c. No damage is evident. Painted surfaces do not show bare metal. Panel lettering is legible; decals are in good condition.
2	N/A	None.	a. Open lamphousing and inspect reflector for cracks and discoloration. Inspect condenser lens assembly for cracks, chips, and scratches. Close lamphousing.	a. Reflector is free from cracks and discoloration. Condenser lens assembly is free from cracks, chips, and scratches.
			b. Operate film gate release knob ----------------	b. Projection lens mounting assembly moves freely, without binding or excessive looseness.
			c. Turn focusing knob throughout its limits of travel.	c. Projection lens carriage assembly moves freely, without binding or excessive looseness.
			d. Loosen lens-locking screw and remove projection lens. Inspect elements of projection lens for cracks, chips, scratches, dirt between elements, and condition of mountings. Replace projection lens and tighten lens locking screw.	d. Lens elements are free from cracks, chips, and scratches. There is no dirt between elements. Elements are firmly mounted.
3	N/A	None.	a. Turn leveling screw all the way in, and then all the way out.	a. Leveling screw turns freely without binding, and does not come free of projector leg.
			b. Turn elevation knob fully counterclockwise -----	b. Front of projector is raised and stays in position without slipping.
			c. Turn elevation knob fully clockwise ------------	c. Front of projector is lowered. Elevation leg retracts from work surface.
4	N/A	None.	a. Turn OFF-MOTOR-LAMP switch to each position.	a. Switch detents are positive. Knob is tight on shaft and properly indexed.
			b. Operate THREADING LAMP switch and REWIND switch to both positions.	b. Switch action is positive.
			c. Press MAGNETIC button OPTICAL button, and RECORD button sequentially.	c. Each button moves freely, without binding, and remains in position.
5	N/A	None.	*Mixer-Amplifier:* a. Inspect mixer-amplifier for loose and missing screws, nuts, and other small parts.	a. All screws and nuts are tight. No parts are missing.
			b. Inspect condition of rubber feet ----------------	b. Rubber feet are not cut, torn, or badly damaged.
			c. Inspect mixer-amplifier for evidence of physical damage and for condition of finish and panel lettering. *Note:* Touchup painting is recommended whenever practicable instead of refinishing. Screwheads, binding posts, receptacles, and plated fastener parts will not be painted or polished with abrasives.	c. No damage is evident. Painted surfaces do not show bare metal. Panel lettering is legible.
			d. Turn GAIN controls throughout their limits of travel and operate other controls to each position.	d. Controls operate freely, without binding or excessive looseness. Knobs are tight and properly indexed.
6	N/A	None.	*Speaker:* a. Inspect speaker case for loose and missing screws and other small parts.	a. All screws are tight. No parts are missing.
			b. Inspect case for evidence of physical damage and for condition of finish.	b. There is no evidence of physical damage. Painted surfaces do not show bare metal.
			c. Inspect condition of rubber feet ---------------	c. Rubber feet are not cut, torn, or badly damaged.
			d. Inspect speaker cone for tears, punctures, and warpage.	d. Speaker cone is free from tears, punctures, and warpage serious enough to cause distortion or rattling.
7	N/A	None.	*Cables, covers, and cases:* a. Inspect all cables for cuts, abrasions, and signs of deterioration of insulation, and for condition of terminating plugs and receptacles.	a. Cables are free from cuts, abrasions, and signs of serious deterioration. Plugs and receptacles are intact and free from damage.
			b. Check length of each cable. Check for presence of grounding wire.	b. Power cables are not less than 14 feet long. Each power cable has grounding wire not less than 4 inches long.
			c. Inspect three fabric dust covers for holes, tears, and extensive wear.	c. Dust covers are in serviceable condition.
			d. Inspect cases for loose and missing parts, and condition of finish.	d. There are no parts missing. Finish is satisfactory.
			e. Inspect interior of transit cases for condition of rubber shock pads.	e. Rubber shock pads are not loose, torn, or deteriorated.
8	*MX-1292/PAQ* 245V FOR MV LAMP: OFF	None.	*MFP:* a. Connect power cord of MX-1292/PAQ to power source. Turn 245V FOR MV LAMP switch *ON*.	a. None.
			b. Expose areas that have been repaired or disturbed to rays of lamp. *Note:* Moisture-fungiproofing varnish glows gray green when exposed to rays of mercury-vapor lamp.	b. All electrical components, wires, and chassis surfaces show unbroken coverage. There is no varnish on switch contacts or moving parts of mechanical assemblies.
9	None.	None.	*MWO's:* Check equipment for applicable modification work orders and proper markings.	Equipment bears markings showing that all applicable MWO's have been performed.

COLOR CODE MARKING FOR MILITARY STANDARD CAPACITORS

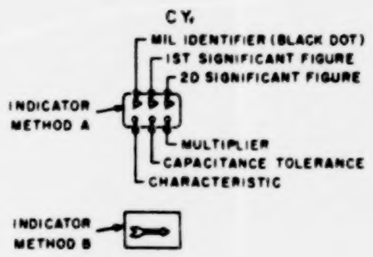
GROUP I Capacitors, Fixed, Various-Dielectrics, Styles CM, CN, CY, and CB



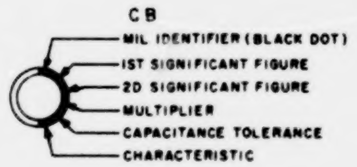
MICA-DIELECTRIC



PAPER-DIELECTRIC

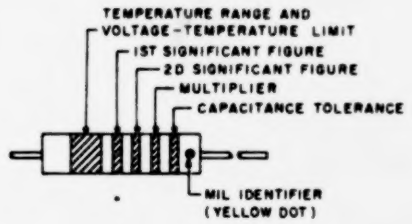


GLASS-DIELECTRIC, GLASS CASE

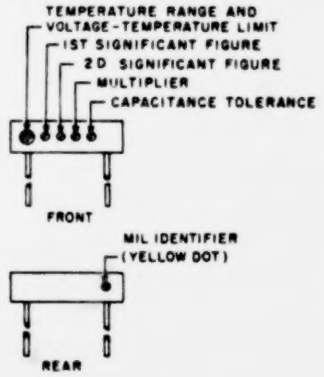


MICA, BUTTON TYPE

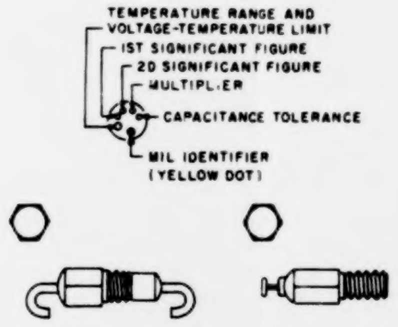
GROUP II Capacitors, Fixed Ceramic-Dielectric (General Purpose) Style CK


TEMPERATURE RANGE AND VOLTAGE-TEMPERATURE LIMIT
1ST SIGNIFICANT FIGURE
2D SIGNIFICANT FIGURE
MULTIPLIER
CAPACITANCE TOLERANCE
MIL IDENTIFIER (YELLOW DOT)

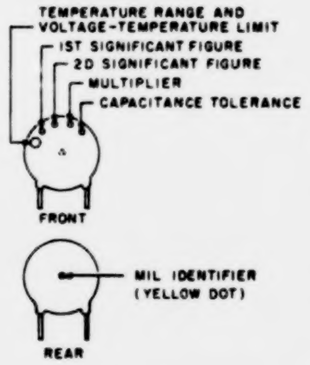
AXIAL LEAD



RADIAL LEAD

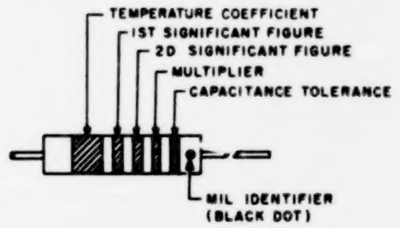

TEMPERATURE RANGE AND VOLTAGE-TEMPERATURE LIMIT
1ST SIGNIFICANT FIGURE
2D SIGNIFICANT FIGURE
MULTIPLIER
CAPACITANCE TOLERANCE
MIL IDENTIFIER (YELLOW DOT)

FEED-THROUGH STAND-OFF

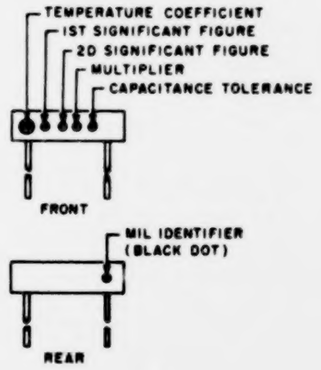


DISK-TYPE

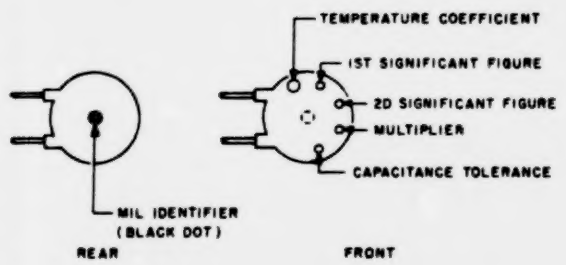
GROUP III Capacitors, Fixed, Ceramic-Dieletric (Temperature Compensating) Style CC



AXIAL LEAD



RADIAL LEAD



DISK-TYPE

COLOR CODE TABLES

TABLE I – For use with Group I, Styles CM, CN, CY and CB

COLOR	MIL ID	1st SIG FIG	2nd SIG FIG	MULTIPLIER[1]	CAPACITANCE TOLERANCE				CHARACTERISTIC[2]				DC WORKING VOLTAGE	OPERATING TEMP. RANGE	VIBRATION GRADE
					CM	CN	CY	CB	CM	CN	CY	CB	CM	CM	CM
BLACK	CM, CY CB	0	0	1			± 20%	± 20%		A				−55° to +70°C	10–55 cps
BROWN		1	1	10					B	E		B			
RED		2	2	100	± 2%		± 2%	± 2%	C		C			−55° to +85°C	
ORANGE		3	3	1,000		± 30%			D			D	300		
YELLOW		4	4	10,000					E					−55° to +125°C	10–2,000 cps
GREEN		5	5		± 5%				F				500		
BLUE		6	6											−55° to +150°C	
PURPLE (VIOLET)		7	7												
GREY		8	8												
WHITE		9	9												
GOLD				0.1			± 5%	± 5%							
SILVER	CN				± 10%	± 10%	± 10%	± 10%							

TABLE II – For use with Group II, General Purpose, Style CK

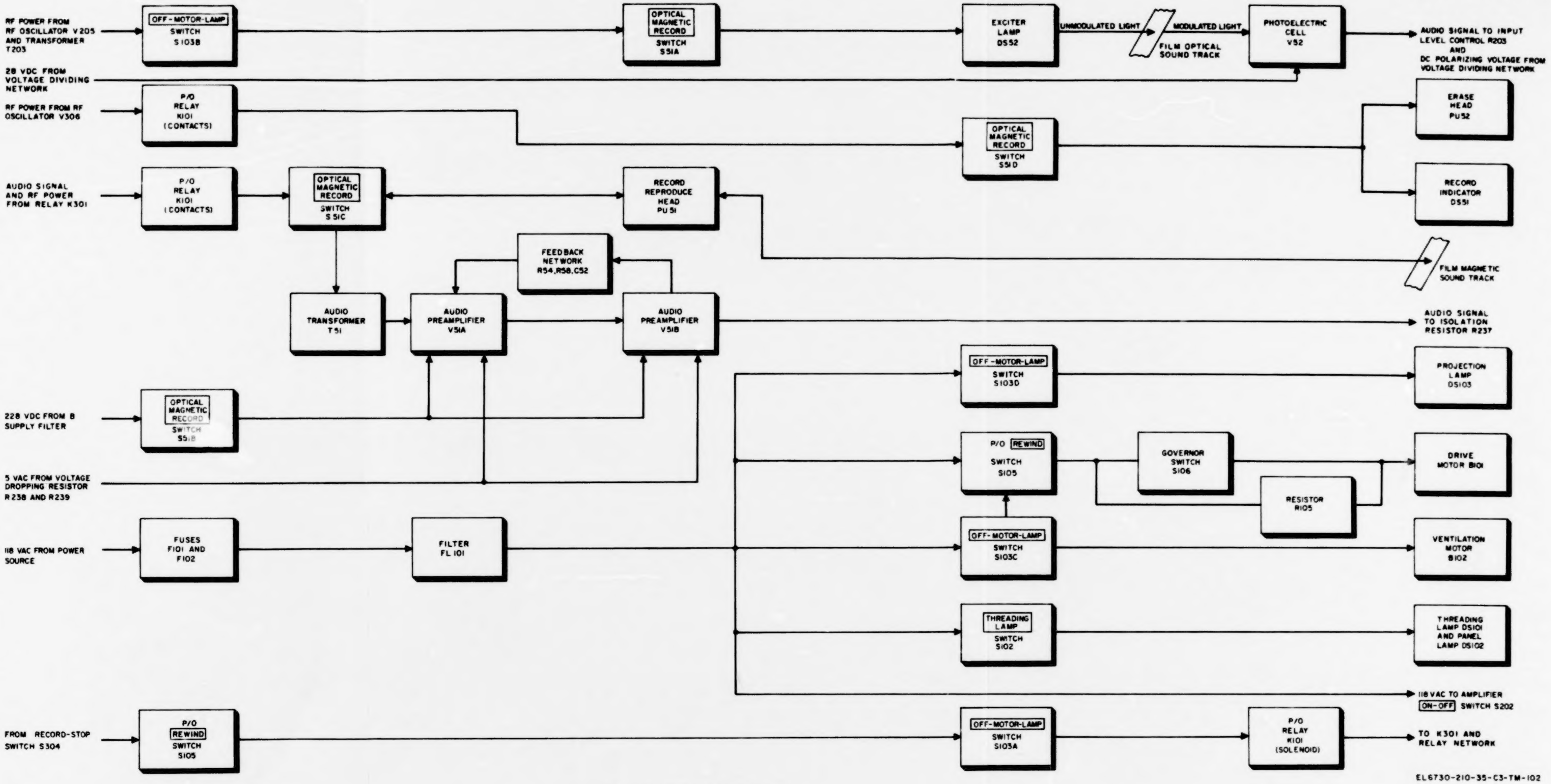
COLOR	TEMP. RANGE AND VOLTAGE – TEMP. LIMITS[3]	1st SIG FIG	2nd SIG FIG	MULTIPLIER[1]	CAPACITANCE TOLERANCE	MIL ID
BLACK		0	0	1	± 20%	
BROWN	AW	1	1	10	± 10%	
RED	AX	2	2	100		
ORANGE	BX	3	3	1,000		
YELLOW	AV	4	4	10,000		CK
GREEN	CZ	5	5			
BLUE	BV	6	6			
PURPLE (VIOLET)		7	7			
GREY		8	8			
WHITE		9	9			
GOLD						
SILVER						

TABLE III – For use with Group III, Temperature Compensating, Style CC

COLOR	TEMPERATURE COEFFICIENT[4]	1st SIG FIG	2nd SIG FIG	MULTIPLIER[1]	CAPACITANCE TOLERANCE		MIL ID
					Capacitances over 10uuf	Capacitances 10uuf or less	
BLACK	0	0	0	1		± 2.0uuf	CC
BROWN	−30	1	1	10	± 1%		
RED	−80	2	2	100	± 2%	± 0.25uuf	
ORANGE	−150	3	3	1,000			
YELLOW	−220	4	4				
GREEN	−330	5	5		± 5%	± 0.5uuf	
BLUE	−470	6	6				
PURPLE (VIOLET)	−750	7	7				
GREY		8	8	0.01			
WHITE		9	9	0.1	± 10%		
GOLD	+100					± 1.0uuf	
SILVER							

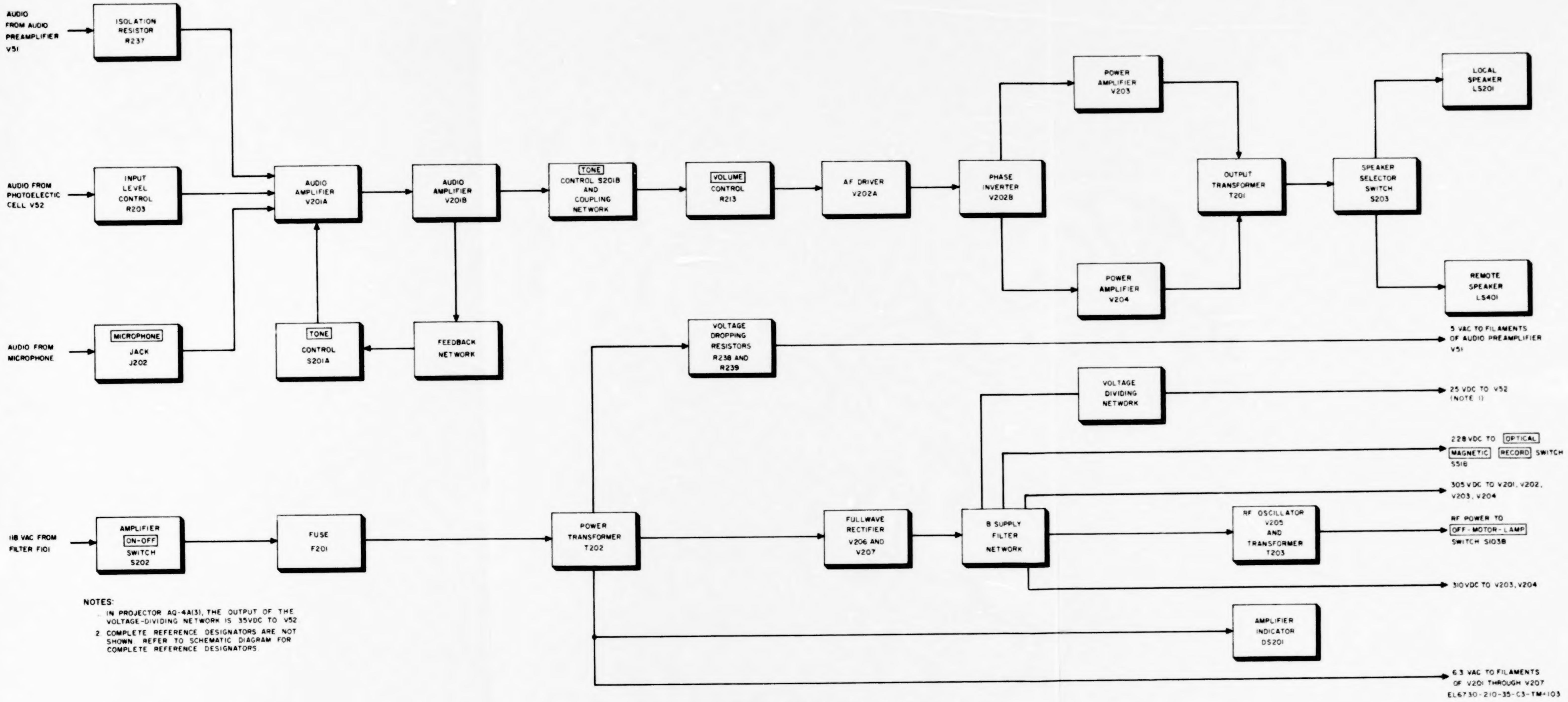
1. The multiplier is the number by which the two significant (SIG) figures are multiplied to obtain the capacitance in uuf.
2. Letters indicate the Characteristics designated in applicable specifications: MIL–C–5, MIL–C–91, MIL–C–11272, and MIL–C–10950 respectively.
3. Letters indicate the temperature range and voltage-temperature limits designated in MIL–C–11015.
4. Temperature coefficient in parts per million per degree centigrade.

Figure 92 Color-code marking for MIL-STD capacitors.


RF POWER FROM RF OSCILLATOR V205 AND TRANSFORMER T203
OFF-MOTOR-LAMP SWITCH S103B
OPTICAL MAGNETIC RECORD SWITCH S51A
EXCITER LAMP DS52
UNMODULATED LIGHT
MODULATED LIGHT
FILM OPTICAL SOUND TRACK
PHOTOELECTRIC CELL V52
AUDIO SIGNAL TO INPUT LEVEL CONTROL R203 AND DC POLARIZING VOLTAGE FROM VOLTAGE DIVIDING NETWORK
28 VDC FROM VOLTAGE DIVIDING NETWORK
RF POWER FROM RF OSCILLATOR V306
P/O RELAY K101 (CONTACTS)
OPTICAL MAGNETIC RECORD SWITCH S51D
ERASE HEAD PU52
RECORD INDICATOR DS51
AUDIO SIGNAL AND RF POWER FROM RELAY K301
P/O RELAY K101 (CONTACTS)
OPTICAL MAGNETIC RECORD SWITCH S51C
RECORD REPRODUCE HEAD PU51
FEEDBACK NETWORK R54,R58,C52
FILM MAGNETIC SOUND TRACK
AUDIO TRANSFORMER T51
AUDIO PREAMPLIFIER V51A
AUDIO PREAMPLIFIER V51B
AUDIO SIGNAL TO ISOLATION RESISTOR R237
228 VDC FROM B SUPPLY FILTER
OPTICAL MAGNETIC RECORD SWITCH S51B
OFF-MOTOR-LAMP SWITCH S103D
PROJECTION LAMP DS103
5 VAC FROM VOLTAGE DROPPING RESISTOR R238 AND R239
P/O REWIND SWITCH S105
GOVERNOR SWITCH S106
RESISTOR R105
DRIVE MOTOR B101
118 VAC FROM POWER SOURCE
FUSES F101 AND F102
FILTER FL101
OFF-MOTOR-LAMP SWITCH S103C
VENTILATION MOTOR B102
THREADING LAMP SWITCH S102
THREADING LAMP DS101 AND PANEL LAMP DS102
118 VAC TO AMPLIFIER ON-OFF SWITCH S202
FROM RECORD-STOP SWITCH S304
P/O REWIND SWITCH S105
OFF-MOTOR-LAMP SWITCH S103A
P/O RELAY K101 (SOLENOID)
TO K301 AND RELAY NETWORK
EL6730-210-35-C3-TM-102

NOTE:
COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN. REFER TO SCHEMATIC DIAGRAM FOR COMPLETE REFERENCE DESIGNATORS.

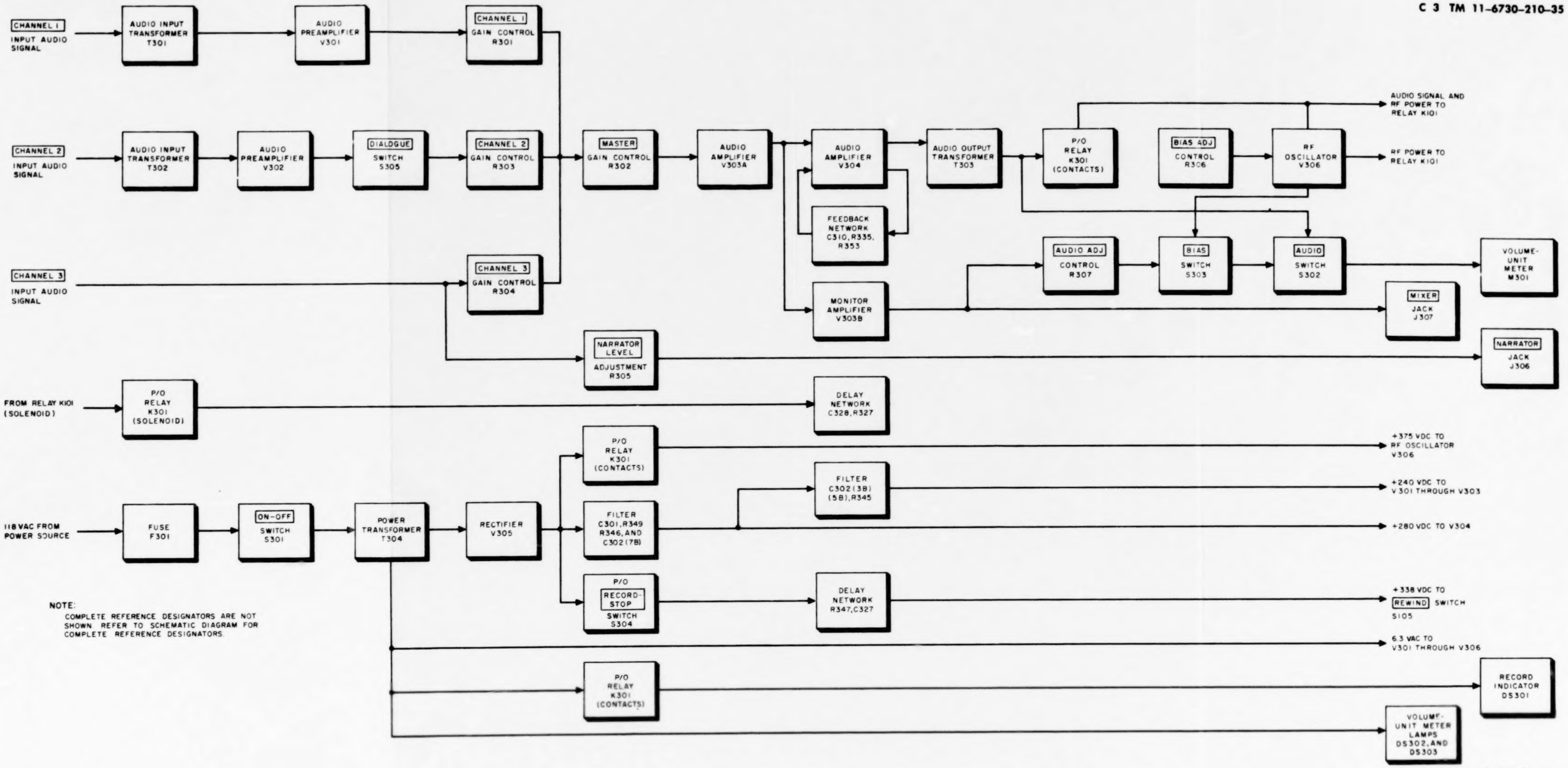
Figure 93. Projector, block diagram.


AUDIO FROM AUDIO PREAMPLIFIER V51
ISOLATION RESISTOR R237
AUDIO FROM PHOTOELECTIC CELL V52
INPUT LEVEL CONTROL R203
AUDIO FROM MICROPHONE
MICROPHONE JACK J202
AUDIO AMPLIFIER V201A
TONE CONTROL S201A
AUDIO AMPLIFIER V201B
FEEDBACK NETWORK
TONE CONTROL S201B AND COUPLING NETWORK
VOLUME CONTROL R213
AF DRIVER V202A
PHASE INVERTER V202B
POWER AMPLIFIER V203
POWER AMPLIFIER V204
OUTPUT TRANSFORMER T201
SPEAKER SELECTOR SWITCH S203
LOCAL SPEAKER LS201
REMOTE SPEAKER LS401
118 VAC FROM FILTER F101
AMPLIFIER ON-OFF SWITCH S202
FUSE F201
POWER TRANSFORMER T202
VOLTAGE DROPPING RESISTORS R238 AND R239
5 VAC TO FILAMENTS OF AUDIO PREAMPLIFIER V51
FULLWAVE RECTIFIER V206 AND V207
B SUPPLY FILTER NETWORK
VOLTAGE DIVIDING NETWORK
25 VDC TO V52 (NOTE 1)
228 VDC TO OPTICAL MAGNETIC RECORD SWITCH S518
305 VDC TO V201, V202, V203, V204
RF OSCILLATOR V205 AND TRANSFORMER T203
RF POWER TO OFF-MOTOR-LAMP SWITCH S103B
310 VDC TO V203, V204
AMPLIFIER INDICATOR DS201
6.3 VAC TO FILAMENTS OF V201 THROUGH V207
EL6730-210-35-C3-TM-103

NOTES:

1. IN PROJECTOR AQ-4A(3), THE OUTPUT OF THE VOLTAGE-DIVIDING NETWORK IS 35VDC TO V52
2. COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN. REFER TO SCHEMATIC DIAGRAM FOR COMPLETE REFERENCE DESIGNATORS.

Figure 94. Projector-amplifier, block diagram.



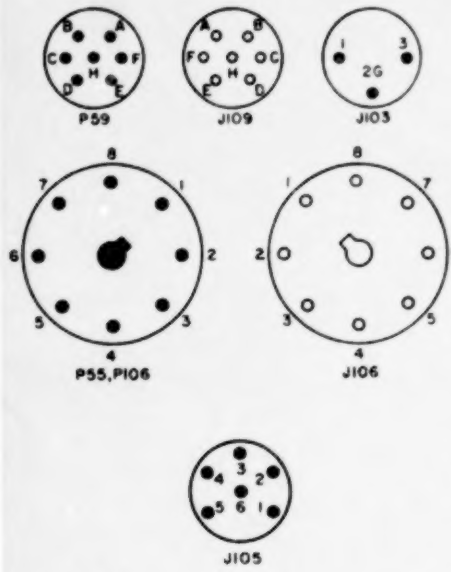
NOTE:
COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN. REFER TO SCHEMATIC DIAGRAM FOR COMPLETE REFERENCE DESIGNATORS.

EL6730-210-35-C3-TM-104

Figure 95. Mixer-amplifier, block diagram.

NOTE:

1. UNLESS OTHERWISE INDICATED, RESISTORS ARE 1/2 WATT, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UUF.
2. ▭ DENOTES EQUIPMENT MARKING.
3. ROTARY SWITCH S51 SHOWN IN EXTREME COUNTER-CLOCKWISE POSITION AS VIEWED FROM SHAFT END (OPTICAL SELECTOR BUTTON ENGAGED).
4. ROTARY SWITCH S103 SHOWN IN EXTREME COUNTER-CLOCKWISE POSITION; SECTION NEAREST CONTROL KNOB IS S103A.
5. THIS LEAD MUST CONNECT TO CENTER TERMINAL OF DS103.
6. CONNECTORS VIEWED FROM PIN OR RECEPTACLE SIDE.



7. IN PROJECTOR AQ-4A(3), THE VALUE OF RESISTOR R53 IS 120K.
8. IN PROJECTOR AQ-4A(3), THE OUTPUT FUNCTION OF PHOTOELECTRIC CELL V52 AT PIN 5 OF CONNECTOR P55 IS AUDIO SIGNAL AND 35 VDC.
9. COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON THE ILLUSTRATION. REFER TO THE CHART BELOW TO DETERMINE COMPLETE REFERENCE DESIGNATORS.

PREFIX	PARTIAL REFERENCE DESIGNATOR
A3	F101, F102, DS103 J105, J109
A3A7	J103
A3A11	DS102, B101, B102
A3A12	DS101, S102 S103, S105
A3A13	K101
A3A11A3	DS51, DS52, V51, P59
A3A11A3A1	S51
A3A11A3W51	P55
A3A11A3W52W1	P54
A3A11A3A5	V52
A3A11A3A12	T51
A3A11A3A11	PU51, PU52
A3A11A10A1	C51 THRU C54 R51 THRU R59
A3A11B101	C107 THRU C112 P106, R105, S106
A3A11B102	C104, C105, J106
A3A12A1	FL101
A3A12W102	P104

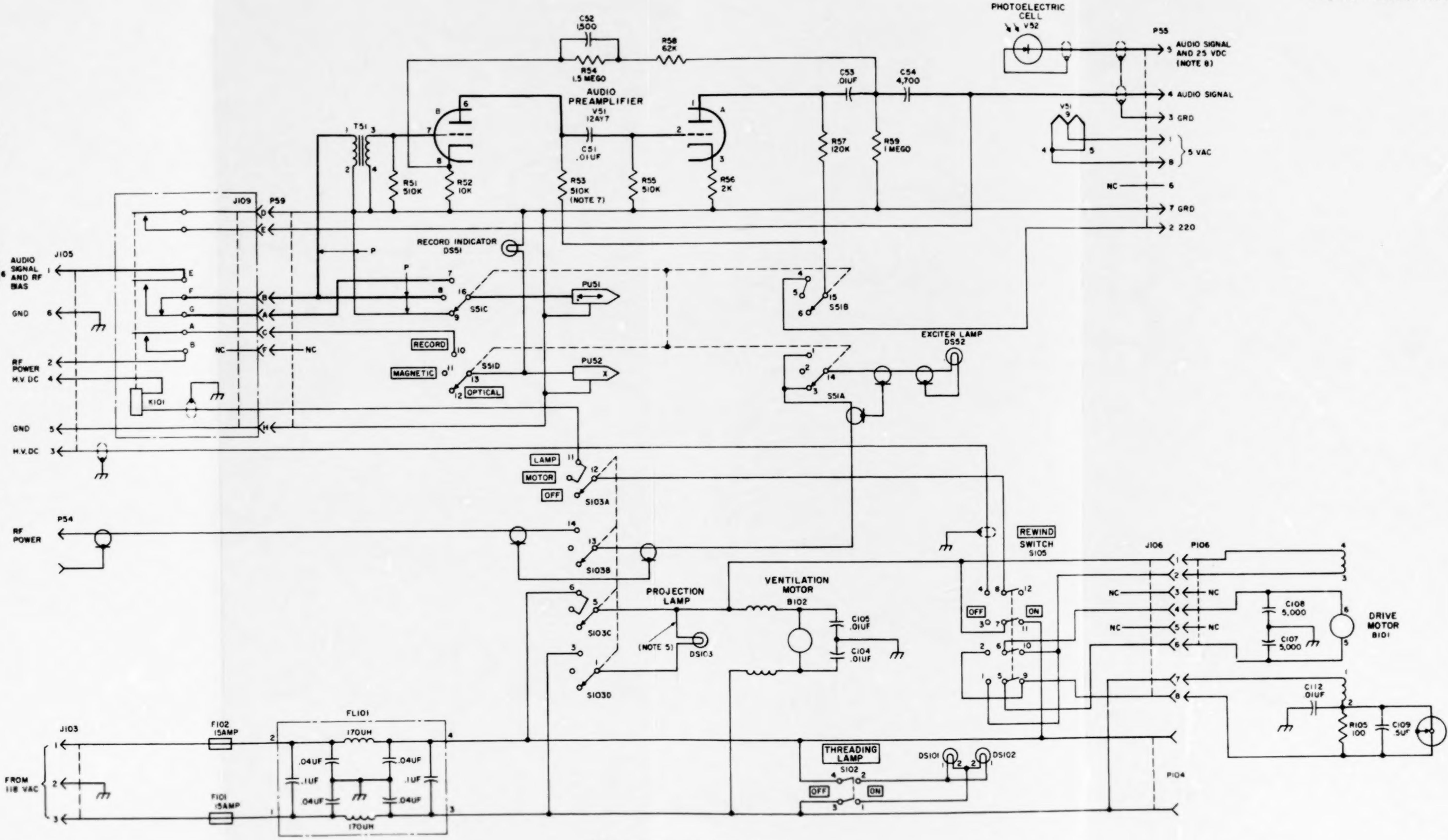


Figure 96. Projector, schematic diagram.

NOTES:

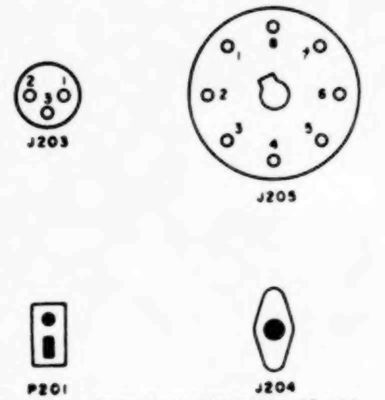
1 UNLESS OTHERWISE INDICATED, RESISTORS ARE 1/2 WATT, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UUF

2 ▭ DENOTES EQUIPMENT MARKING

3 WAFER SWITCH S201 SHOWN IN EXTREME COUNTERCLOCKWISE POSITION

4 TRANSFORMER T201 PRIMARY IMPEDANCE (TERMINALS 1 TO 3), 10,000 OHMS; SECONDARY IMPEDANCE (TERMINALS 4 TO 6) 16 OHMS; SECONDARY TAPPED AT 8 OHMS (TERMINALS 4 TO 5).

5 CONNECTORS VIEWED FROM PIN OR RECEPTACLE SIDE



9 COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON THE ILLUSTRATION. REFER TO THE CHART BELOW TO DETERMINE COMPLETE REFERENCE DESIGNATORS.

PREFIX	PARTIAL REFERENCE DESIGNATOR
A3A1	C214, C216, C224, C219 THRU C222, DS201, F201, LS201, J202 THRU J204, R230, R238, R239 R241, T202, S202, S203, V201 THRU V207
A3A1A2	C202 THRU C213, C223, R201, R236, R240, R204 THRU R212, R214 THRU R222, R224 THRU R228
A3A1A4	R203, R235
A3A1A5	R213
A3A1A6	R237, J205
A3A1A7	R232 THRU R234, C225, S201
A3A1A8	T201
A3A1A9	C217, C218, T203
A3A1W201	P201
A3A11A3W51	P55
A3A1A9	R231

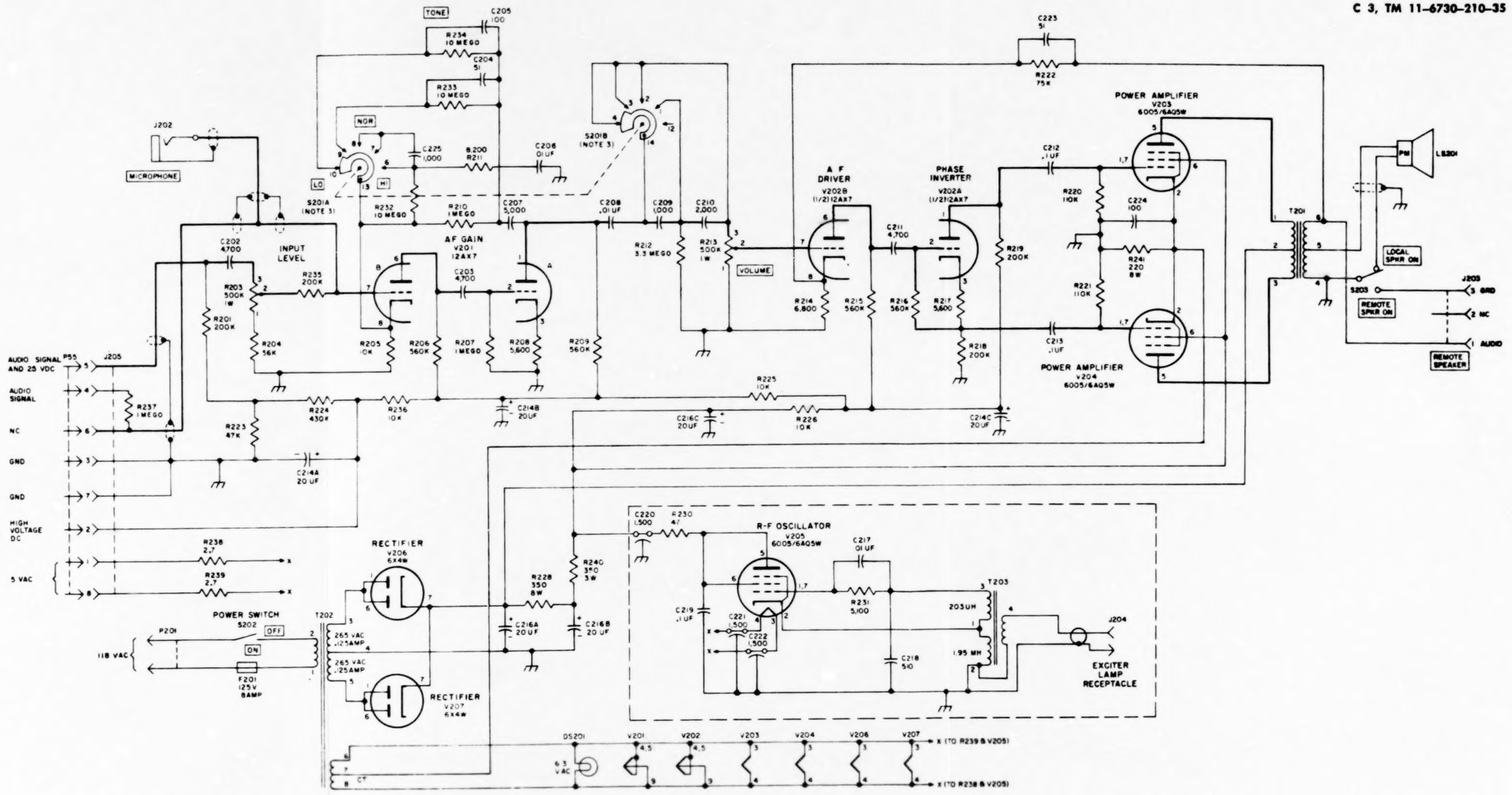
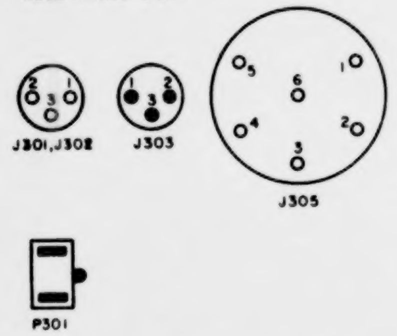


Figure 97. Projector-amplifier, schematic diagram.

NOTES:

1. UNLESS OTHERWISE INDICATED, RESISTORS ARE 1/2 WATT, RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN UUF.
2. ▭ DENOTES EQUIPMENT MARKING.
3. PRIMARY IMPEDANCES AVAILABLE AT T301 AND T302:
   - A. FOR 50-OHM IMPEDANCE, JUMPER TERMINALS 1 TO 4 AND 2 TO 5, AND CONNECT TO TERMINALS 1 AND 2.
   - B. FOR 150-OHM IMPEDANCE, JUMPER TERMINALS 1 TO 4 AND 3 TO 6, AND CONNECT TO TERMINALS 1 AND 6.
   - C. FOR 600-OHM IMPEDANCE, JUMPER TERMINALS 3 AND 4, AND CONNECT TO TERMINALS 1 AND 6.
4. CONNECTORS AS VIEWED FROM PIN OR RECEPTACLE SIDE.



5. COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON ILLUSTRATION REFER TO CHART BELOW FOR COMPLETE REFERENCE DESIGNATORS

PREFIX	PARTIAL REFERENCE DESIGNATOR
A2A1	C301 THRU C306 C309, C327, C328 C321 THRU C324 DS301, F301, K301, M301 J301 THRU J307 R301 THRU R308 R316, R336 S301 THRU S305 T301 THRU T304 V301 THRU V306
A2A1A4	R312, R317, R318 TB302
A2A1A5	C310 THRU C319 C330 L302 R309 THRU R311 R313 THRU R315 R319 THRU R335 R338 THRU R358 TB301
A2A1A11	C308 C325, C326 L301
A2A1W301	P301

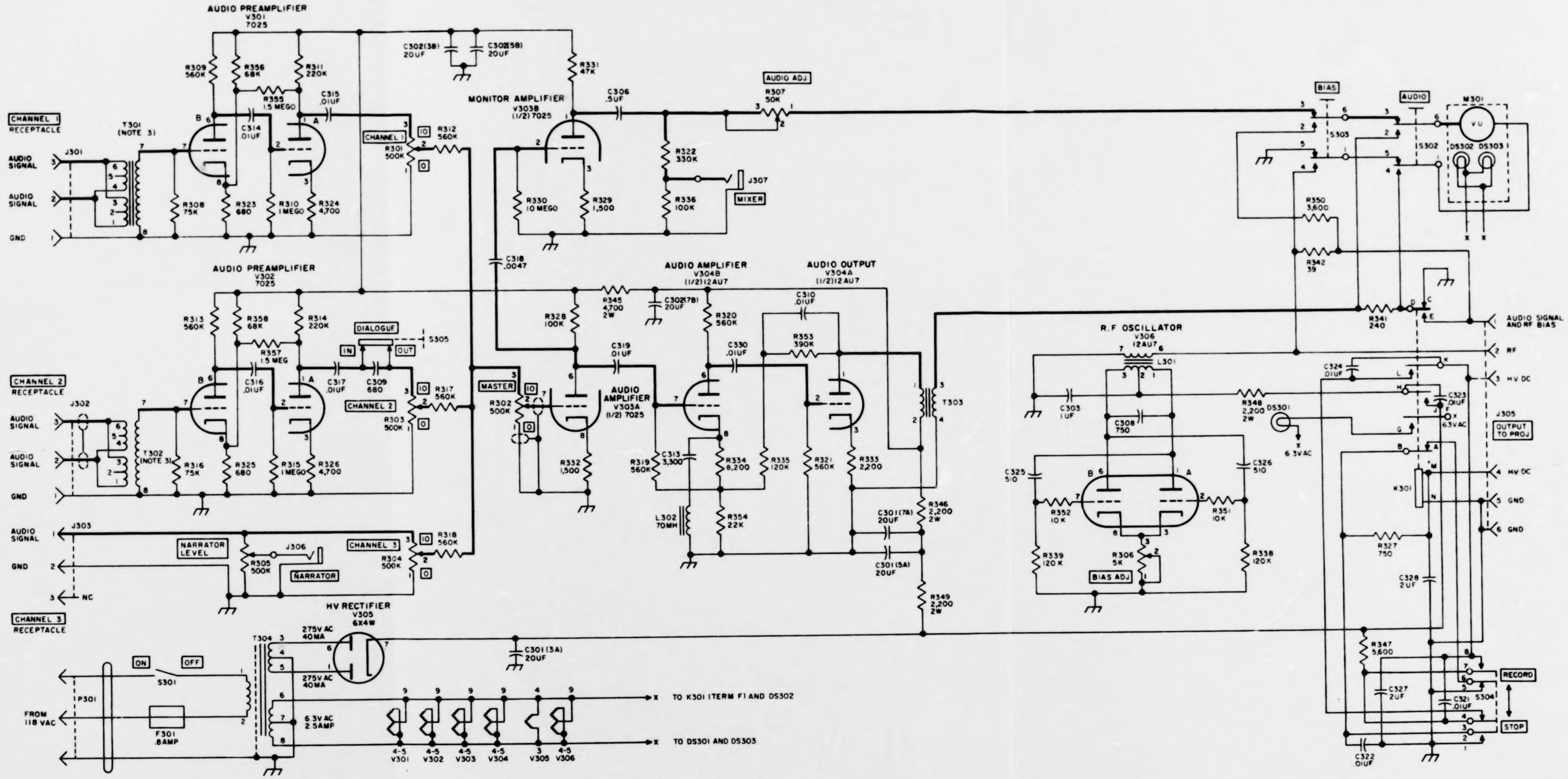


Figure 98. Mixer-amplifier, schematic diagram.

NOTES:

1. ALL WIRES CONNECTING TO THE RIGHT OF A BASE LINE ARE IDENTIFIED IN THE FOLLOWING MANNER:

   STATION NUMBER — TERMINAL NUMBER — COLOR CODE — QTY OF WIRES — WIRE GAGE

   2(1),17(8) BLK(2) #16

   ALL WIRES CONNECTING TO THE LEFT OF A BASE LINE ARE IDENTIFIED IN THE EXACT REVERSE ORDER OF THE ABOVE EXAMPLE.
2. ALL WIRES MARKED NEUT (NEUTRAL COLOR) ARE #26 GAGE SHIELDED CONDUCTORS TYPE RG-174/U PER MIL-C-17C; ALL OTHER WIRES ARE STRANDED WITH PLASTIC INSULATION; WIRE IS 20 GAGE UNLESS OTHERWISE SPECIFIED.
3. BS DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE.
4. BSI DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE INSULATED WITH VINYL INSULATING SLEEVING.
5. P DENOTES TWISTED PAIR OF WIRES.
6. PT DENOTES PIGTAIL LEAD.
7. PTI DENOTES PIGTAIL LEAD INSULATED WITH VINYL INSULATING SLEEVING.
8. (⊂⊃)— DENOTES SHIELDED CONNECTION.
9. MOTOR B101 IS ILLUSTRATED AS VIEWED FROM THE GOVERNOR END AND IN NORMAL INSTALLED POSITION.
10. TERMINALS E5 AND E6 REPRESENT GOVERNOR SLIP RING CONNECTIONS.
11. COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON THE ILLUSTRATION. REFER TO THE CHART BELOW TO DETERMINE COMPLETE REFERENCE DESIGNATORS.

PREFIX	PARTIAL REFERENCE DESIGNATOR
A3	J105, J109, XDS103 XF101, XF102
A3A7	J103
A3A11	B101, B102
A3A11A3	TB51, P59, XDS51
A3A11A3A1	S51
A3A11A3A3	XDS52
A3A11A3A10A1	C51 THRU C54 R51 THRU R59 TB52, XV51
A3A11A3A11	PU51, PU52
A3A11A3A12	T51
A3A11A3W51	P55
A3A11A3W52W1	P54
A3A11B101	C107, C108, C109 P106, R105, S106
A3A11B102	C104, C105, J106
A3A12	S102, S103, S105 XDS101, XDS102
A3A12A1	FL101
A3A12W102	P104
A3A13	K101

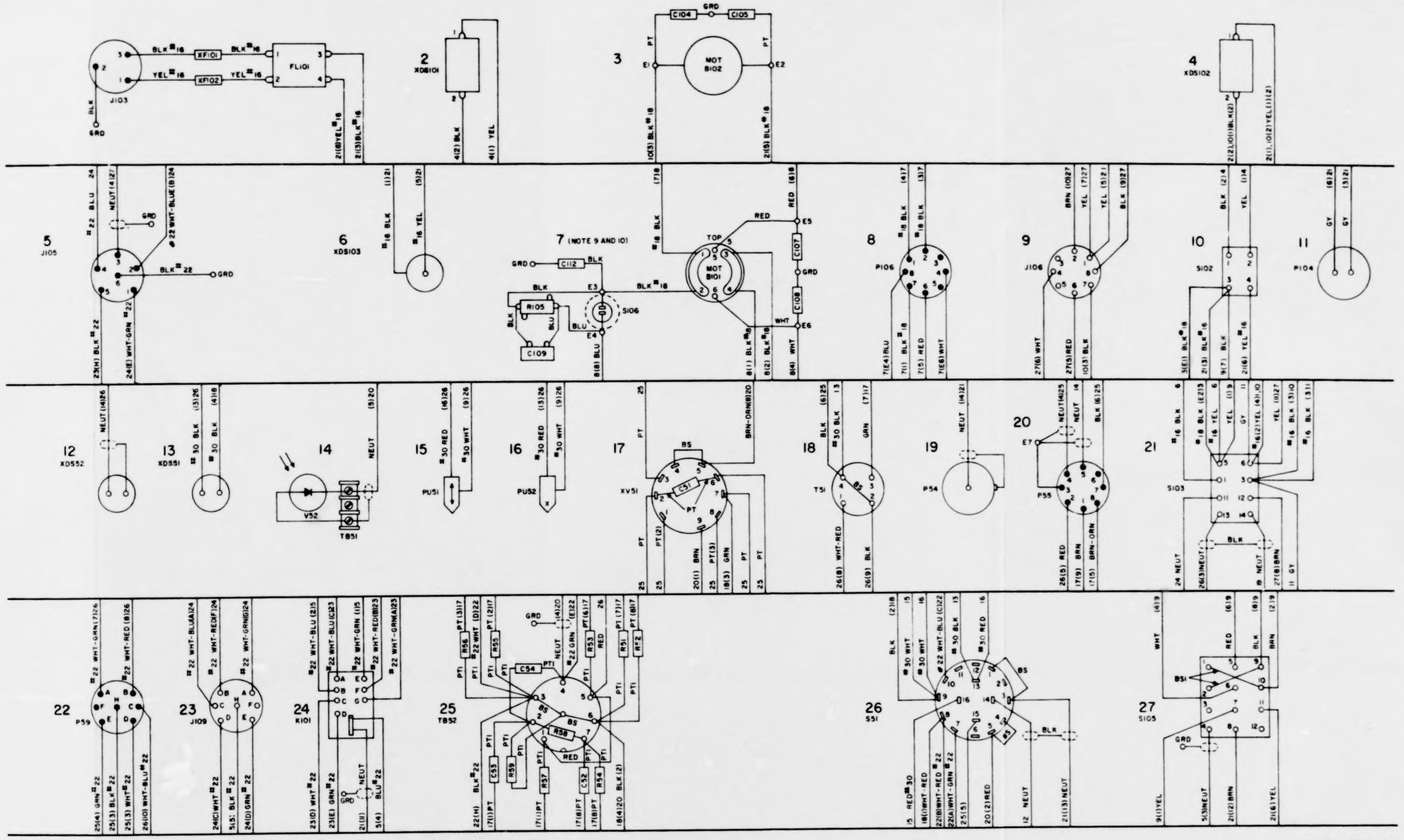


Figure 99. Projector, wiring diagram.

NOTES:

1. ALL WIRES CONNECTING TO THE RIGHT OF A BASE LINE ARE IDENTIFIED IN THE FOLLOWING MANNER:

STATION NUMBER — TERMINAL NUMBER — COLOR CODE — QTY OF WIRES — WIRE GAGE

2(1),17(8) BLK(2) #16

ALL WIRES CONNECTING TO THE LEFT OF A BASE LINE ARE IDENTIFIED IN THE EXACT REVERSE ORDER OF THE ABOVE EXAMPLE.

2. ALL WIRES MARKED NEUT (NEUTRAL COLOR) ARE #26 GAGE SHIELDED CONDUCTORS TYPE RG-174/U PER MIL-C-17C; ALL OTHER WIRES ARE STRANDED WITH PLASTIC INSULATION; WIRE IS #20 GAGE, UNLESS OTHERWISE SPECIFIED.

3. BS DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE.

4. BSI DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE INSULATED WITH VINYL INSULATING SLEEVING.

5. P DENOTES TWISTED PAIR OF WIRES.

6. PT DENOTES PIGTAIL LEAD.

7. PTI DENOTES PIGTAIL LEAD INSULATED WITH VINYL INSULATING SLEEVING.

8. ◯— DENOTES SHIELDED CONNECTION.

9. THE FOLLOWING ARE TERMINAL TO TERMINAL CONNECTIONS ON THE UNDERSIDE OF TB201, STATION 19.

BETWEEN TERMINALS	COLOR
1-43	RED
4-39	RED
5-20	BLK
16-47	RED
19-31	BLK
30-37	RED
31-48	BLK
35-49	BLK
43-50	RED
46-51	BLU
49-52	BLK
34-60	YEL

10. COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON THE ILLUSTRATION. REFER TO THE CHART BELOW TO DETERMINE COMPLETE REFERENCE DESIGNATORS.

PREFIX	PARTIAL REFERENCE DESIGNATOR
A3A1	C214, C216, C219 THRU C222 C224 J202 THRU J204 LS201, R230 R238, R239, R241 T202, S202, S203 XC214 THRU XC216 XDS201, XF201 XV201 THRU XV207 W201P201
A3A1A2	C202 THRU C213 C223, R201 R204 THRU R212 R214 THRU R222 R224 THRU R228 R236, R240 TB201
A3A1A4	R203, R235
A3A1A5	R213
A3A1A6	J205, R237
A3A1A7	C225, S201 R232 THRU R234
A3A1A8	T201
A3A1A9	C217, C218, R231, T203
A3A11A3W51	P55

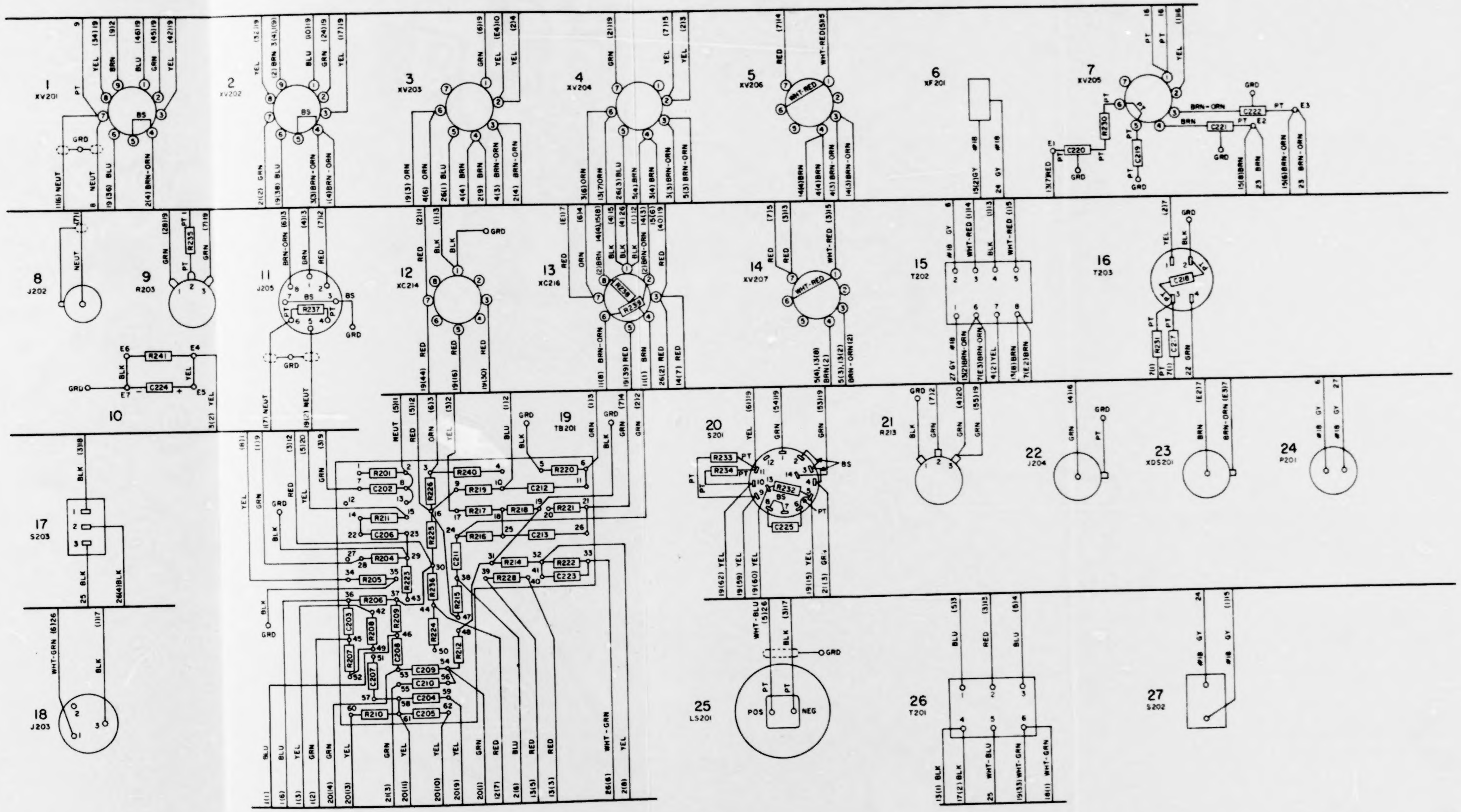


Figure 100. Projector-amplifier, wiring diagram.

NOTES:

1 ALL WIRES CONNECTING TO THE RIGHT OF A BASE LINE ARE IDENTIFIED IN THE FOLLOWING MANNER

STATION NUMBER — TERMINAL NUMBER — COLOR CODE — QTY OF WIRES — WIRE GAGE

2(1),17(8) BLK(2) #18

ALL WIRES CONNECTING TO THE LEFT OF A BASE LINE ARE IDENTIFIED IN THE EXACT REVERSE ORDER OF THE ABOVE EXAMPLE

2 ALL WIRES MARKED NEUT (NEUTRAL COLOR) ARE #26 GAGE SHIELDED CONDUCTORS TYPE RG-174/U PER MIL-C-17C. ALL OTHER WIRES ARE STRANDED WITH PLASTIC INSULATION. WIRE IS 20 GAGE, UNLESS OTHERWISE SPECIFIED

3 BS DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE

4 BSI DENOTES 18 GAGE TINNED, ANNEALED BARE COPPER WIRE INSULATED WITH VINYL INSULATING SLEEVING

5 P DENOTES TWISTED PAIR OF WIRES

6 PT DENOTES PIGTAIL LEAD

7 PTI DENOTES PIGTAIL LEAD INSULATED WITH VINYL INSULATING SLEEVING

8 (‑‑)—— DENOTES SHIELDED CONNECTION

9 UNDERSIDE OF TERMINAL BOARD TB301 ILLUSTRATED. ALL RESISTORS AND CAPACITORS MOUNTED ON TOP SURFACE OF TB301

10 COMPLETE REFERENCE DESIGNATORS ARE NOT SHOWN ON ILLUSTRATION. REFER TO THE CHART BELOW TO DETERMINE COMPLETE REFERENCE DESIGNATORS

PREFIX	PARTIAL REFERENCE DESIGNATOR
A2A1	C303, C306 C308, C309 C321 THRU C324 C327, C328 J301, THRU J307 M301, K301 R301 THRU R308 R316, R336 S301 THRU S305 T301 THRU T303 XDS301, XF301 XV301 THRU XV306
A2A1A4	R312, R317, R318 TB302, XC301, XC302
A2A1A5	C310, C330, TB301 C313 THRU C319 R309 THRU R311 R313 THRU R315 R338, R339 R341, R342 R345 THRU R358 R319 THRU R335
A2A1A11	C325, C326, L301
A2A1W301	P301

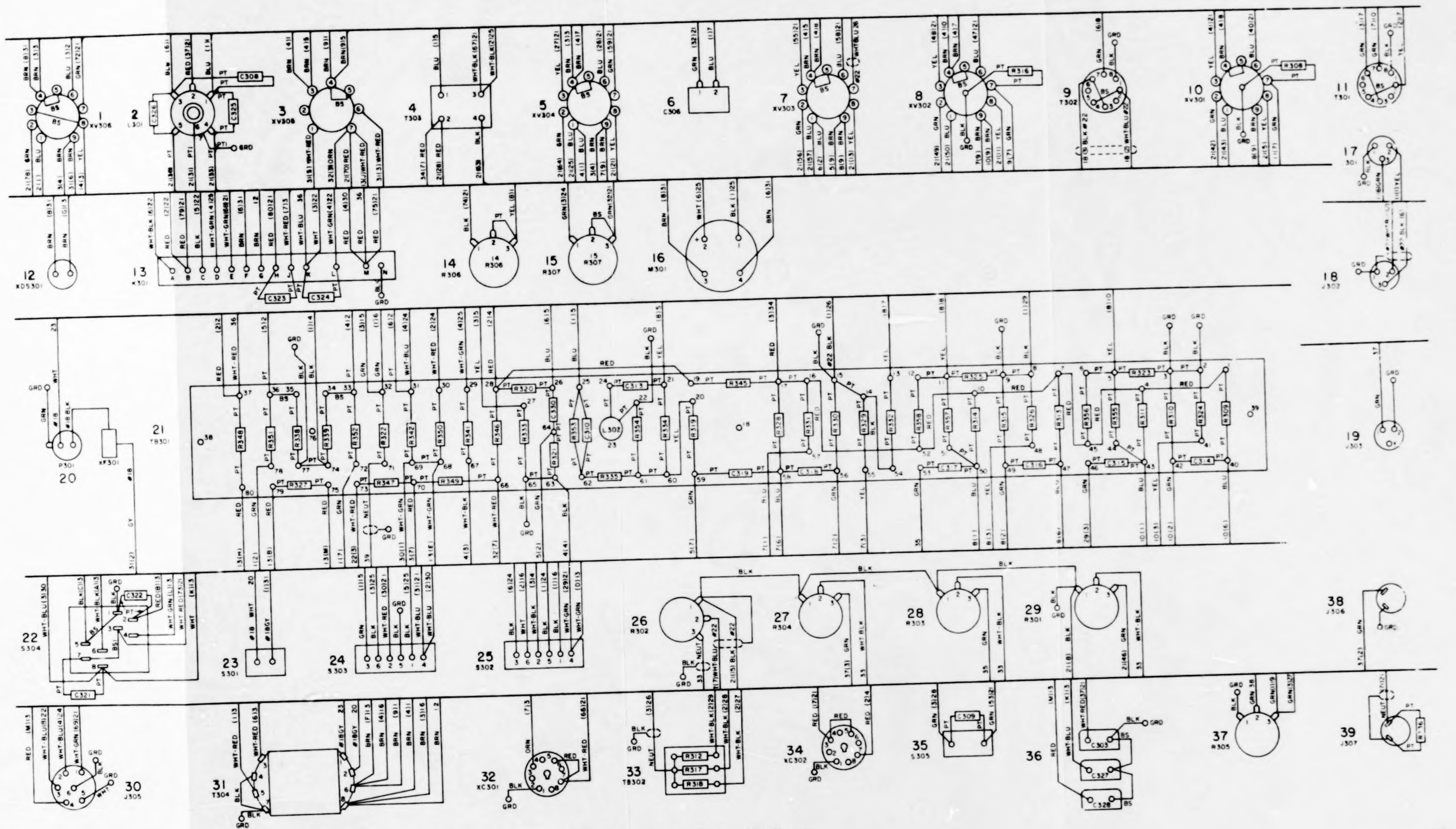


Figure 101. Mixer-amplifier, wiring diagram.